

# GRADUATE BULLETIN

The Graduate Bulletin Online is the most current information available about graduate programs at University of Wisconsin-Stout. Individual sections of the Graduate Bulletin Online will be updated as soon as possible and the revision date noted. Information regarding fees, admission, graduation requirements, names, telephone numbers, and course offerings, is subject to change.

## Accreditation

UW-Stout is accredited by the North Central Association of Colleges and Secondary Schools.

The Higher Learning Commission of the North  
Central Association of Colleges and Schools  
Commission on Institutions of Higher Education  
30 North La Salle Street, Suite 2400  
Chicago, IL 60602-2504

Phone: 800/621-7740

Individual academic programs may also receive accreditation from other agencies. Learn more on the Provost's Office website.

## Minnesota Student Addendum

The University of Wisconsin Stout is registered as a private institution with the Minnesota Office of Higher Education pursuant to sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

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## The University

### UW-Stout

UW-Stout is one of 13 publicly supported universities in the University of Wisconsin System. It was founded as a private institution in 1891 by James Huff Stout. A Menomonie industrialist and a man of great vision, he saw that students in America's developing industrial society needed a different kind of education, an education broader than that offered by traditional curriculum. Since its founding, UW-Stout has gained a position of national and international leadership in industry, commerce, education and human services. Its programs in those fields are among the finest in the world. Strong programs that relate to technology, vocation and society have also been established. Although UW-Stout is a

career-oriented university, its leaders have had the foresight to make the humanities and social sciences key parts of the total educational program.

### UW-Stout's Special Mission

UW-Stout, as a special mission institution, serves a unique role in the University of Wisconsin System. UW-Stout is characterized by a distinctive array of programs leading to professional careers focused on the needs of society. The university offers undergraduate and graduate programs leading to professional careers in industry, commerce, education and human services through the study of technology, applied mathematics and science, art, business, industrial management, human behavior, family and consumer sciences, and manufacturing-related engineering and technologies. These programs are presented through an approach to learning which involves integration of theory, practice and experimentation. Extending UW-Stout's mission into the future requires that instruction, research and public service programs be adapted and modified as the needs of society change.

Learn more about UW-Stout's Mission and Strategic Goals.

### Wisconsin's Polytechnic University

University of Wisconsin-Stout is a comprehensive, career-focused polytechnic university where students, faculty and staff use applied learning, scientific theory and research to solve real-world problems, grow the state economy and serve society. Our tenets:

**Career Focus:** A polytechnic university offers a comprehensive curriculum that prepares graduates for professional careers.

**Applied Learning:** A polytechnic university blends theory with practice to produce innovative solutions to real world problems.

**Collaboration:** A polytechnic university works closely with business, industry and other educational institutions to benefit students and grow the economy.

### Recognized Quality

In 2001, UW-Stout became the first university in the nation to receive the Malcolm Baldrige National Quality Award, America's highest honor for performance excellence and quality achievement.

The university's mission driven, market smart focus promotes collaborative leadership and an inclusive strategic planning process. Baldrige Award criteria are used by organizations worldwide. Winning organizations become quality advocates, informing thousands about the criteria benefits, including better employee relations, higher productivity and greater customer satisfaction.

### Research

Research and scholarship by faculty and staff are encouraged to constantly add to the bodies of knowledge on which degree programs are based. Research and programmatic activities in teacher education, technology and engineering, curriculum development, applied mathematics, service management, food science, and numerous other disciplines and interdisciplinary areas are formulated, executed, and reported. Field surveys and experimental projects are reported in professional literature and to professional organizations. Consultation on research design is offered. Research and scholarship are encouraged and coordinated through Research Services (152 Vocational Rehabilitation Bldg., 715/232-1126).

Additional information is available at the Research Services website.

### **The Faculty**

UW-Stout has a specialized faculty comprised of individuals nationally and internationally recognized in their respective fields. Classes are taught and research projects coordinated by highly qualified professionals. The graduate faculty is composed of approximately 281 members. Of these, 147 hold earned doctorate degrees, while others hold specialized degrees in their respective fields. One of the fine traditions at UW-Stout has been the faculty and staff commitment to provide extra help in one-on-one situations to students.

### **Facilities**

Modern and well-equipped facilities mark UW-Stout's 131-acre campus. We are proud of our laboratory-intensive programs. Located in the center of the city of Menomonie, adjacent to the downtown business district and Lake Menomin, UW-Stout offers an attractive, convenient and accessible campus setting.

### **Academic Year**

The academic year is composed of two semesters, which are further divided into two nine-week quarters. The designation of a quarter represents one-half a semester and should not be confused with the quarter system used at other universities. Courses scheduled on the quarter basis meet twice as often each week as courses scheduled on the semester basis. Credit hours are awarded on a semester credit hour basis for courses scheduled on either basis. (See Load Limit for additional information.)

### **Summer Session**

UW-Stout conducts a 10-week summer session with classes varying in length and delivery format. You may earn up to 10 credits during the 10 weeks of summer session. We encourage you to register for classes in April and May. Complete information about class schedules, enrollment procedures, degree programs and housing is available on the Summer Session website.

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### **WinTerM**

UW-Stout conducts a winter session between first and second se-mesters with credit-bearing classes varying in length and delivery format. Complete information about courses and enrollment procedures is available on the WinTerM website.

### **Evening, Saturday and Off-Campus Courses**

Evening, Saturday, off-campus and distance education credit courses are offered through Outreach Services (140 Vocational Rehabilitation Building, 715/232-2693). Registration for these courses can be completed prior to or at the first class meeting. Textbooks required for the class are made available for purchase at the first class meeting. Course numbers, titles and content are the same as regular courses. To be awarded graduate credit you must be admitted to the Graduate School.

### **The Co-op/Intern Program**

Some degree programs require a co-op/intern experience, and it is a valuable option in many others. It provides an opportunity to work with professionals in your career area, before you graduate.

The program director approves a published job description before you begin the experience. You are awarded credit based on the length of the experience, the responsibilities given you, and the goals and objectives you carry into the job. Grades and credits are awarded by a university mentor. A co-op or internship can be as short as one summer, or can last for a combination of semesters. For more information, contact Career Services (Room 103, Administration Building, 715/232-1601) or on the Career Services website.

### **International Education**

UW-Stout is committed to international education and the exchange of ideas and cultures among students, faculty and the community. The university welcomes international students and encourages study abroad. Many of Stout's majors lead to careers that require an understanding of people and cultures in the global community.

Students from more than 47 nations attend UW-Stout each year. More than half of the international student body at UW-Stout pursues graduate degrees.

Office of International Education International programs and student activities are coordinated through the Office of International Education (715-232-2132). This office coordinates all overseas involvement and provides overseas opportunities for students, faculty and staff.

### **International Student Services**

The special needs of international students are met through professional and referral services provided by the Office of International Education. These services include confidential personal counseling on immigration matters, financial

matters, academic questions, social customs and personal concerns. Other services that promote cross-cultural understanding include new student orientation, problem solving and liaison activities in the university and Menomonie area community.

### **Study Abroad for Graduate Students**

UW-Stout encourages graduate students to incorporate study abroad into their educational plan whenever possible. UW-Stout offers joint undergraduate and graduate study abroad programs in many majors. These courses are typically short-term, and offered during school breaks or summer. Information about current study abroad offerings can be found at [www.uwstout.edu/intl](http://www.uwstout.edu/intl). UW-Stout also encourages students to develop language skills and offers study abroad programming where students can enroll in intensive language study while abroad. For information about these opportunities, contact the Office of International Education (715/232-2132), or visit their website.

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## **The Graduate School**

The Graduate School at UW-Stout is fully accredited by the North Central Association of Colleges and Secondary Schools (NCA) to offer work at the master's and education specialist levels. The Marriage and Family Therapy program is accredited by the American Association of Marriage and Family Therapists (AAMFT). UW-Stout is an institutional member in the Midwest Association of Graduate Schools.

The Graduate School, a unit of the division of Academic and Student Affairs, provides oversight for graduate education in the university. The Graduate School administers graduate admissions, graduate assistantships, records, policies and other procedures relating to graduate students. The Graduate School includes, in addition to its administrative personnel, the Graduate Office, which provides services to graduate students and program directors.

The Graduate Education Committee establishes Graduate Policy. The Graduate Education Committee consists of 13 voting members and three non-voting ex-officio members. Four graduate faculty members elected by the Faculty Senate (one from each of the four colleges/school). Seven additional graduate faculty members from the four colleges/school as well as four alternate graduate faculty members that are elected by the graduate faculty members of those units. One academic staff member and one alternate elected by the Senate of Academic Staff, as well as one graduate student member elected by the Stout Student Association, one ex-officio Graduate Studies Coordinator, one ex-officio member from the University Library, and one ex-officio member from the Provost's Office

### **Graduate Administration**

Dr. Charles W. Sorensen  
Chancellor  
320 Administration Building, 715/232-2441

Dr. Jackie Weissenburger  
Interim Provost and Vice Chancellor for Academic and Student Affairs  
303 Administration Building, 715/232-2421

Glendali Rodriguez  
Associate Vice Chancellor  
303 Administration Building, 715/232-2421

Amy Gillett  
Interim Director, Office of Graduate Studies  
208 Robert S. Swanson Library and Learning Center,  
715/232-1666

### **Graduate Program Websites**

Program websites provide current information about UW-Stout's graduate offerings. Readers will find contact information for program directors, application information and forms, information about faculty and facilities, and answers to frequently asked questions.

Graduate Programs (link to  
<http://www.uwstout.edu/programs/grad.cfm>)

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## **Admission**

### **Eligibility for Admission**

A person who has a bachelor's or higher degree, awarded by an accredited institution of higher education, may apply for admission. Such accreditation is usually granted by a regional accrediting agency recognized by the United States Department of Education, the Council on Postsecondary Accreditation or, in selected cases, an agency judged appropriate by the admissions examiner.

An applicant for a master's program must have been awarded a bachelor's degree or equivalent. A program or combination of programs in higher education encompassing a period of study of at least four academic years which leads to the award of a diploma or certificate may be judged by the program director and the director of the Office of Graduate Studies to be equivalent to a bachelor's degree.

An applicant for an education specialist program must have been awarded a master's degree.

**Note:** Non-degree seeking students should refer to the section on non-program enrollment. UW-Stout students

should refer to the section on Dual Level Admission.

## Application for Admission

Persons seeking admission to a graduate program or a graduate certification program must submit a properly completed application form to the Graduate Office 30 days before the expected term of enrollment, or by the deadline date established for a given program. Individual graduate programs may have additional requirements: Applied Psychology, Education, Family Studies and Human Development, Marriage and Family Therapy, Mental Health Counseling, School Counseling, School Psychology, and Vocational Rehabilitation each have special application forms in addition to those required by the Graduate School, which may require letters of recommendation and interviews. The Education Specialist program requires a vita and letters of recommendation.

Applicants need to submit two official transcripts that show the bachelor's degree awarded plus all transcripts of any graduate work attempted or completed. If the undergraduate transcript shows grades for less than 55 semester credits, then transcripts from all other institutions attended for the degree will be required. The applicant must request the registrar(s) to send the official transcripts. An applicant may submit an official transcript providing it bears no restrictive statement. UW-Stout transcripts need not be requested. An applicant applying prior to being awarded a degree must submit a transcript which shows work through all but the last term. Such applications are subject to re-evaluation based upon the final transcript. In rare cases, an applicant may submit an attested copy of a transcript. A \$56 non-refundable fee is required.

All applicants from countries in which English is not the official language of instruction must take the Test of English as a Foreign Language (TOEFL) and have the score sent to the Graduate Office, or have successfully completed an English as a Second Language Program which has been formally recognized by this university. The minimum acceptable TOEFL total scores are: 500 paper-based, 173 computer-based, or a 61 Internet-based. The Vocational Rehabilitation program requires higher minimum scores. International students must show that adequate financial support exists for the planned period of study by filing a Declaration of Finances which is available from the Graduate School (208 Robert S. Swanson Learning Center, 715/232-2211) or online. In addition, students supported by a government agency must present written evidence of approval by that agency for the program requested.

Some programs have specific time frames for application. Program application dates are posted online.

## Evaluation of Admission Criteria

Applicants are evaluated on the basis of previous degree work, scholastic achievement, appropriateness of

educational background and the relevancy of work experience.

Grade point averages will usually be identified on the transcripts submitted by the degree-granting institution. In cases where the applicant attended more than one institution and less than 55 credits were awarded by the degree-granting institution, or where a grading system other

Undergraduate Work			Graduate Work		
Grade	Points	Description	Grade	Points	Description
A	4.00	Excellent	A	4.00	Exceptional
A-	3.67		A-	3.67	
B+	3.33		B+	3.33	
B	3.00	Very Good	B	3.00	Satisfactory
B-	2.67		B-	2.67	
C+	2.33		C+	2.33	
C	2.00	Average	C	2.00	Marginal
C-	1.67				
D+	2.33				
D	2.00	Passing	D	1.00	Unsatisfactory
D-	0.67				
F	0.00	Failure	F	0.00	Failure

than the following was used, the overall grade point average will be calculated by the graduate student evaluator.

## Grading System Used to Evaluate Transcripts

The appropriateness of course work taken will be evaluated by the program director(s) in relation to the optimum background specified for the program(s) requested. Educational deficiencies may necessitate additional undergraduate and/or graduate work.

Where applicable, work experience will be reviewed by program directors in the evaluation process. Lack of relevant work experience may lead to denial of admission.

An applicant may be denied admission on the basis of any one or any combination of the following: absence of a degree from an accredited institution, low grade point average, inappropriate educational background, insufficient relevant work experience, a TOEFL score below the minimum required, or enrollment limitations.

## Admission Status

Admission may be full or probationary.

**Full Status** An applicant fulfilling the specified requirements for educational background and work experience may be granted full admission provided that the following grade point averages were attained. The general requirement for full admission is a 2.75 grade point average overall, or 2.90 grade point average on a minimum of the last 55 semester credits attempted. A grade point average of 3.25 on master's degree and other graduate work is required for full

admission to an Ed.S. program. However, individual graduate programs may require a higher grade point average. Check the program requirements listed elsewhere.

**Probationary Status** An applicant for a master's program may be granted probationary admission with an undergraduate grade point average of less than 2.75. It should be noted that education programs may require an absolute minimum grade point average of 2.75 for admission if the applicant seeks certification. Applicants accepted for an Ed.S. program may be granted probationary admission with a grade point average ranging from 3.0 to 3.25 on the master's degree and other graduate work. Check specific program requirements listed elsewhere.

Each applicant generally will be informed of admission or denial within 30 days of the receipt of all required materials. Applicants to programs with priority or deadline dates will be notified about 30 days after the priority date has passed.

Admission is granted for one term. Admitted applicants who do not enroll within that term must update their application with the Graduate School Office for consideration of admission to the next available term. Persons wishing to delay their enrollment for a year or longer must reapply. Reapplication within three years may not require repayment of the application fee.

A student may change programs, or may change from non-degree seeking to a program classification by completing the Application for Admission. All admission requirements must be fulfilled to effect the change.

### Dual Level Admission

Undergraduate UW-Stout students may apply for admission to a master's degree program, or enroll as a special student and take graduate courses, provided that they are within 30 credits and one year of obtaining their bachelor's degree, and must have a minimum grade point average of 2.75 on the undergraduate record on the date of enrollment. Dual level students may earn no more than nine graduate credits while under this status. They may enroll for no more than six graduate credits in a semester and no more than three graduate credits during the summer session. The applicant must submit a Dual Level Enrollment status form, in addition to the other application materials, to the Graduate School. A student admitted on dual level who is not awarded the undergraduate degree at the end of the specified term, will be dropped from the Graduate School without loss of graduate credit. Upon subsequent receipt of the degree, the student may reapply for admission. Dual level credit limit is governed by the Graduate Load Limit policy.

Graduate UW-Stout students may be admitted to an Ed.S. program providing that the master's degree will be awarded at the end of the term in which Ed.S. work is taken and that the graduate grade point average is at least 3.25 at the time of application. The Dual Level Enrollment status form must

be submitted along with the other regular Ed.S. admission requirements. A student admitted on dual level (M.S./Ed.S.) who is not awarded the master's degree at the end of the specified term, will be dropped from the Ed.S. program without loss of credit. Upon subsequent receipt of the master's degree, the student may reapply for admission to an Ed.S. program.

### Multiple Program Admission

A student may apply for and enroll in more than one master's program at a time. However, the program that will be completed first must be identified. Separate applications and accompanying materials are required for each.

### Second Master's Program

A graduate of a master's degree program may earn a second master's degree by meeting program requirements. Up to 15 credits may be applied from a previous master's degree to UW-Stout programs that require up to 45 credits for graduation. For UW-Stout programs that require more than 45 credits, up to one-third of the minimum credits required for graduation from the program may be from the previous master's degree. The seven year limit (2.1.8) does not apply to the credits from the previous master's degree. The second master's program must include a minimum of 15 credits from UW-Stout and must include any research requirement specified in the program.

### Non-Degree Seeking (Special) Enrollment

To be eligible, an individual must hold a bachelor's degree from an accredited institution. Students who are in good standing in a degree program may request a change to non-degree seeking enrollment status. Individuals who have been dropped from a program are not eligible to pursue coursework as "special students." A student may request initial permission to enroll in graduate courses as a non-degree seeking (special) student by completing the Application for Admission/Enrollment form available online at [www.uwstout.edu/grad](http://www.uwstout.edu/grad). Subsequent enrollment as a non-degree seeking "special" student does not require a new application for admission/enrollment but may require that the student update their records and should contact the Graduate School (715/-232-2211). All students, including non-degree seeking enrolled students, are subject to Graduate School policies.

Non-degree seeking students are advised in pursuing their non-program work by the director, Office of Graduate Studies. Non-degree seeking students may enroll in any 500 or 600 level course, and most 700 level courses. Certain 700 level courses, such as research, practicum and internship, and all 800 level courses are restricted to program-enrolled students.

While there is no numerical limit on the number of total credits that can be taken as a non-degree seeking student, the number of such credits that can be applied to a degree program is limited to one-third of the minimum number of

credits required for graduation in that program. Individual programs may set a lower limit for such credits, provided this lower limit has been approved through the official curriculum process. Completion of courses while enrolled as a non-degree seeking student does not guarantee admission into a specific degree program. If a non-program special student decides to enter a specific graduate program, the student must apply for admission into that program.

Typically, financial aid is not available for those enrolled as non-degree seeking students.

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## Registration for Classes

Generally, graduate students may register for the Fall term in April, for the Spring term in October, and for the Summer Session in March. When registration for a term begins, online registration is available only prior to the start of a term. Prior to registering for each term, graduate students should consult with their program director regarding their course selection and program plan. Some programs, such as Food and Nutritional Sciences, Mental Health Counseling, and Risk Control require the consultation to allow removal of a registration hold.

The class schedule contains listings for all UW-Stout course offerings. It is available online by selecting “Class Search” on the UW-Stout homepage. Those numbered 700 and greater are graduate-level only. Those numbered 500 and 600 have a counterpart undergraduate course number.

All policies affecting students in the areas of add and drop deadlines, class attendance, grading and other helpful information are available on the Registration and Records Office website.

### Current Address

Permanent home and local addresses are recorded in the university’s student records system. Students are required to submit a valid address when they register and to keep the university apprised of any address changes. The local address, where you live while you are a student at UW-Stout is used for most university correspondence. It is the address to which the Student Business Services Office will mail an initial bill covering tuition and fees for each term during which you are enrolled. Students may submit a change of address to the Registration and Records Office (109 Bowman Hall), or the Graduate School (208 Robert S. Swanson Learning Center) anytime. You can also change your address online. When changing your address, be sure to indicate whether you are changing your permanent, local or other address.

### Early Registration Online

All currently enrolled students may choose to register via Access Stout, UW-Stout’s web-based student information system. Follow the instructions and links on the Access Stout page to complete the registration process.

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## Tuition and Fees

### Tuition and Fees

Graduate tuition and institutional fees are set by the University of Wisconsin Board of Regents and are subject to change. Current tuition rates are online. If you have questions, contact Student Business Services (126 Administration Building, 715/232-1656).

All UW-Stout students are required to have a signed Payment Plan Agreement/Application on file with the Office of Student Business Services. All Wisconsin residents are also required to provide information on their marital status. The application is online at [www.uwstout.edu/stubus](http://www.uwstout.edu/stubus) or you may pick up a copy at the Office of Student Business Services.

### Resident Status

Adult students who have been bona fide residents of Wisconsin for at least 12 months immediately preceding the beginning of the term of enrollment at the university are considered to be resident students for tuition purposes.

Any minor or adult student who is a graduate of a Wisconsin high school and whose parents are bona fide residents of this state for 12 months preceding the beginning of the term of enrollment, or whose last surviving parent was a bona fide resident of the state for 12 months preceding death, are also considered to be residents.

In determining bona fide residence, intent to establish and maintain a permanent home in Wisconsin is determinative. The burden of proof is on the student but intent may be demonstrated or disproved by factors including, but not limited to, filing of Wisconsin income tax returns, possession of a Wisconsin operator’s license, place of employment and self-support. Persons employed full time in Wisconsin, who were relocated here by their current employer or who came to Wisconsin for their current employment and who accepted that employment before moving here and before applying for admission to the university and who remain continuously employed full time by that employer are considered a resident student. Any spouses and dependents of these individuals would also be considered resident students if they can demonstrate an intent to establish and maintain a permanent home in the state.

Non-resident members of the armed forces and persons engaged in alternative service who are stationed in

Wisconsin for purposes other than education, their spouses and minor children, are also considered to be residents for tuition purposes during the period such persons are stationed in Wisconsin.

### **Part-Time Students**

Part-time graduate students are those carrying fewer than nine credits.

### **Dual Level Students**

Dual Level students (eligible undergraduates carrying graduate work simultaneously) pay the tuition and fees associated with the course, i.e. graduate tuition for graduate courses, and undergraduate tuition for undergraduate courses.

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### **Tuition and Fee Refunds**

Refunds for fees paid are prorated according to the length of the course and the number of days a course has been in session. Refunds for early withdrawal during a semester for a course of at least 12 weeks are:

- First week – 100%
- Second week – 100%
- Third week – 50%
- Fourth week – 50%
- Fifth week – 0%

In determining the withdrawal date, the university uses the date the student notifies the school of the withdrawal; or if the student fails to notify the school and is otherwise unable to verify date of withdrawal, the date of the request to refund will be used to determine the refund.

Students who enter military service by enlistment or otherwise shall receive a refund in accordance with the standard refund policy of the university. Other exceptions may be made upon approval of the chancellor or his designee and the designated Board of Regents representative.

### **Minnesota – Wisconsin Tuition Reciprocity**

An agreement between the states of Wisconsin and Minnesota permits residents of either state to attend higher education institutions in the other state at the same tuition rate as their home state.

To be eligible under this agreement, a student must file an application prior to or during the term or semester in which he or she expects to first receive the waiver of the non-resident portion of tuition. Applicants may apply online at [www.getreadyforcollege.org](http://www.getreadyforcollege.org). Applications are also available from Student Business Services (126 Administration Building, 715/232-1656). A student is deemed to meet this application date requirement if his or her completed application is postmarked no later than the last day of scheduled classes. A

term or semester is deemed to run through the last day of scheduled classes as published in the academic calendar of the institution. Neither the Minnesota Higher Education Coordinating Commission nor the university will be financially liable for students enrolled under the reciprocity agreement who have not received prior approval and certification by the Minnesota Higher Education Services Office, 1450 Energy Park Drive, Suite 350, St. Paul, MN 55108-5227.

### **Thesis Processing Fee**

All graduate students will be assessed a processing fee of \$50 for the final compliance clearance of their research and deposit of the research report in the University Library. This will be billed by the Business Office as a special course fee when the students register for their research credits.

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### **Graduation Fee**

Upon applying for graduation, candidates will be billed a one-time, non-refundable, graduation fee of \$50 for the diploma, diploma cover and other items used in commencement. It does not cover fees for cap and gown, which are available from the University Bookstore.

### **Special Course Fees**

Many individual courses require special course fees. These are identified in the Course Timetable each term.

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## **Financial Assistance**

### **Financial Aid**

The Financial Aid Office provides resources to UW-Stout students and their families who need assistance in paying for college costs. This assistance is in the form of grants, work programs and student loans.

The philosophy for all need-based financial aid programs is that students and their families are primarily responsible for financing their education. Families applying for financial aid need to fill out a financial statement listing their income, assets and liabilities. Established federal and state formulas are used to determine a reasonable contribution from the student and family. State and federal financial aid is intended to meet education costs above that reasonable contribution.

Financial aid must be applied for annually with the Free Application for Federal Student Aid (FAFSA). The FAFSA is available online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). If you apply electronically, the student and parents may use a PIN to electronically sign the FAFSA. A PIN is easily obtained online at [www.pin.ed.gov](http://www.pin.ed.gov). The Financial Aid Office recommends the FAFSA online, as it is easy to use and shortens application processing time. A paper version of the FAFSA is also available at high schools, any post-secondary financial aid office or Stout will mail one to the family if requested.

UW-Stout's Federal School Code Number is 003915. This number is required on the FAFSA if the results are designated for Stout. When the results of the FAFSA are received by Stout, the student and family may be asked for further information or clarification. Once the application process is complete, the student will receive an award letter to accept or decline the aid offered.

Students may submit their financial aid application on or after January 1 of the academic year of enrollment. UW-Stout's recommended priority filing date is March 15 for a fall start date to ensure all aid programs are available. Financial aid application must be made each year. See important dates online.

Financial aid is awarded based on need, enrollment status and aid program availability. Students must be enrolled in a degree program at UW-Stout and maintain satisfactory academic progress.

All available federal and state financial aid, except earnings from work study, will be credited directly to student accounts at the beginning of each semester. All university charges will be deducted from aid funds prior to any refund to the student. Refunds will be automatically sent to the student's university identification card account or designated bank. Paper refund checks may be mailed to students if this method is preferred.

All financial aid awarded may be subject to change because of levels of state or federal funding or receipt of aid at prior post-secondary institutions or any new information including receipt of aid or resources such as scholarships.

More complete information about the topics mentioned here, as well as information on available resources including student employment, loans, application procedures, scholarships and grants, alternative loans and other aid is available on the Financial Aid website.

### **Graduate Assistantships**

Graduate assistantships provide stipends in return for a designated amount of professional service. Graduate teaching assistantships provide stipends in return for time spent teaching a laboratory or discussion session. Assistantships range from one-eighth time to one-half time. Graduate assistantships of one-third or more time may include a partial or full waiver of the non-resident portion of tuition. Non-resident tuition waivers are subject to availability of funds. Students with a waiver for two consecutive semesters, or a waiver for spring semester, may also receive the award of a tuition waiver for the regular summer session. A graduate assistant must carry a minimum of six credits per semester or three credits per summer session while on the assistantship. The maximum credit hour load may also be limited during the term of the assistantship. Graduate assistantships are controlled by the various departments, units and/or research grants of the university.

To become eligible for an assistantship, a student must be admitted to a graduate degree program (graduate special and dual level students are not eligible). Students who have made application for graduate assistantship, and have been admitted to the Graduate School, generally have the best opportunity to make their qualifications known to the various supervisors who employ graduate assistants. The application form and a list of assistantship positions available are online at [www.uwstout.edu/grad/ga](http://www.uwstout.edu/grad/ga), in the Graduate School office, or mailed upon request in the spring term for fall employment. Early application is essential. It is the responsibility of the student to make contact with the supervisor indicated on the list for more information on the positions and setting up an interview. The department offering the position makes a recommendation to Human Resources concerning the graduate assistant to be hired. Human Resources officially offers the position to the prospective applicant by sending them a written contract that should be signed and returned before work begins. An application is valid for one academic year.

Assistantships are normally filled on an academic year basis, although some assistantships can be for one semester only. A one-half time assistantship requires 20 hours work per week (640 hours per year). Additional information is available online at the Graduate Studies website.

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## **Program Plan**

### **Requirements of the Program Plan**

Descriptions of program plans are found in this Graduate Bulletin. These descriptions are regulated by the governance procedures of UW-Stout. The individual student's program plan is initiated by the student, approved by the program director and the college dean, and submitted to the graduate office along with the Application for Degree Candidacy for final approval by the director, Office of Graduate Studies. The approved program plan must identify the year and term of the earliest credit that will be used to meet program requirements. The program plan is kept on file with the program director.

Master's programs require a minimum of 30 credits. Education Specialist programs require a minimum of 36 credits. Individual programs and/or certification may specify additional credits. Check the program requirements listed elsewhere in this bulletin.

Students will be held to the approved program plan on file in the graduate office at the pre-graduation checkout.

One-half of the minimum credits required for graduation must be in graduate only (700-800) courses.



## Independent Study

Students may design special topic courses independent of the curriculum. This option is open during any enrollment or course-add period. Summer Session enrollments are closed at the end of the fifth week of the eight-week session. Students may initiate the process by obtaining an Application for Independent Study from the office of the college in which the independent study is to be offered. The student selects a topic and completes the form. After a topic has been identified and approved by the appropriate department chair, a member of that department is appointed study coordinator. The independent study coordinator provides counsel and aid to the student in achieving the approved desired learning objectives. Credits are awarded on the basis of expending a minimum of 48 hours of effort for each credit and on an evaluation of the extent to which the stated objectives were met. Existing courses are not offered as independent study topics. Registration may take place after the application for independent study form has been approved by the Graduate School.

Students should consult in advance with their program director to find out whether the proposed independent study may be used in the degree program.

## Credit by Examination

Credit by examination is possible through “test-out” procedures developed by the various academic departments. Students must be enrolled during the test-out term and will be charged a test-out fee. A credit by examination form must be obtained from the UW-Stout college or school housing the course. This form includes Graduate School approval and must be completed in order for a “test-out” to be recorded.

## Research Requirement

All programs require a research component which may or may not include a research paper or thesis. See the program descriptions for individual program requirements and options.

## Transfer Credit

Graduate credit earned at another graduate school may be considered toward the fulfillment of program requirements provided that:

- They meet the Seven-Year limit policy.
- The institution is accredited at the graduate level.
- The course is offered for graduate credit and is applicable to a graduate program at the offering institution.
- It must appear as a graduate course on the student’s graduate transcript from the offering institution.

- The grade received was “B” (3.0) or higher.

To be applied to program requirements, transfer credits must be approved by the program director using the Request to Transfer Credit form. The total of these is limited to one-third of the minimum required credits for graduation from the program. Said credits will be posted on the UW-Stout transcript when two copies of official transcripts and a Request to Transfer form are filed in the Graduate Office and are part of the program plan with the approved Application for Degree Candidacy. Only those credits to be used to meet program requirements will be transferred.

Credit may be transferred from those international institutions with which UW-Stout has entered into a formal transfer agreement. All other criteria listed here apply.

## Load Limit

Graduate students may take a maximum of 16 credits per semester or 10 credits per 10-week Summer Session. Credits taken through Outreach Services, independent study, audit, internship, cooperative education or special topics are included in the maximum credit load. With the approval of the program director, a student may take a two-credit overload during a semester or a one-credit overload during the summer session. Credit Overload Permit cards are available from the program director or the Graduate Office. Any requests for loads greater than the permitted overloads will be referred to the Exceptions Committee. Exceptions forms are available from the program director or the Graduate Office.

## Seven Year Limit

All course work, including transfer credits and research used to meet program requirements, must be completed within the seven-year period prior to graduation.

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# Program Progress

## Degree Candidacy

The Application for Degree Candidacy initiates the process by which the Graduate School, in conjunction with the program director and the college dean, attests to the appropriateness of the program plan and the potential of the student to obtain the related academic and professional competencies. Candidacy must be approved before the Graduate Application for Degree is filed with the Graduate Office. At the time of filing, the following conditions must exist:

- The student is on full academic standing.
- The student and program director will verify that the “expected outcomes of the graduate residency

experience” have been met by signing the Application for Degree Candidacy.

- A program plan has been approved by the program director and college dean.

The Application for Degree Candidacy must be accompanied by the Approved Program Plan and an unofficial UW-Stout graduate transcript. If transfer credit is involved, the Request to Transfer Credit form and transcripts must be attached or on file in the Graduate Office. Degree candidacy requires the approval of the program director, the dean (or designate) of the college within which the program is housed, and the director, Office of Graduate Studies.

### **Meeting the Research Requirement**

Individual programs have various options for meeting the research requirement, and the Graduate School has assembled a corresponding information packet.

The student initiates the process by which the research adviser is identified by filing the Appointment of Research Adviser/Chair and Committee form at the Graduate Office.

Research advisers must be members or associate members of the graduate faculty. A current listing may be obtained from the Graduate School or online.

The completed research report (including the abstract) must be submitted to the Graduate School on or before the last day of the term in which graduation is expected. This submission must include paper copy using the formats approved by the Graduate School and outlined in the current research packet.

All research advisers and graduate students must complete UW-Stout’s human subjects training online before submitting any protocols to the Institutional Review Board (IRB) for review and approval. These changes are designed to bring UW-Stout into compliance with current federal regulations regarding research which involves human subjects.

Once the training has been completed, students must complete the IRB Review request form (available in the research packet or online). Submit the completed form, including required signatures and other required materials, to Research Services, 152 Vocational Rehabilitation Building.

The student’s request will be reviewed by an IRB member within ten working days. If there are any corrections or modifications, the student should resubmit the request and it will be reviewed by an IRB member within ten working days. The request would go through the full IRB only if the reviewer suggests it and they meet once a month. Once a student’s request has been approved, they may begin data collection.

## **Graduation**

Candidates must file a Graduate Application for Degree/Commencement with the Graduate Office at the beginning of the term in which they expect to graduate. The Application for Degree Candidacy must have been approved prior to filing the Graduate Application for Degree/Commencement.

To file, the candidate must be on full academic standing and must meet all program requirements as specified in the Graduate Bulletin at the time that the program plan was approved by the program director. The Graduate School and the program director will certify that all requirements have been met. The diploma will be mailed to the student two to three months after the end of the term of graduation. Candidates that require certification of graduation earlier may request a transcript from the Registration and Records Office. A candidate will be recorded as “graduated” at the end of the term in which all program requirements were completed, including the filing of the research report in the graduate office, and its approval by the director, Office of Graduate Studies.

Candidates may request to participate in the graduation ceremony if all requirements have been met except the filing of the research report. This assumes that the candidate has enrolled for the required research course where applicable. The request is available as the Graduate Application for Degree/Commencement.

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# **Academic Standing**

### **Review for Academic Standing**

Each student will be reviewed for academic standing at the end of each term.

**Full Academic Standing** To maintain full academic standing, an accumulated grade point average of 3.0 for master’s degree students and 3.25 for education specialist degree students is required. If less than the minimum is attained, the student will be placed on probationary academic standing.

**Probationary Academic Standing** A student on probationary academic standing who attains the minimum accumulated grade point average will be removed from probationary status and accorded full academic standing. A student on probationary academic standing who fails to attain the minimum accumulated grade point average will be dropped from the university. Students with probationary academic standing cannot graduate from the program or university. The student must attain the minimum accumulated grade point average required by the Graduate School.

**Dropped** A student dropped from the university is not eligible to enroll for graduate credit unless readmitted to a graduate program.

Grade	Points	Description
A	4.00	Exceptional
A-	3.67	
B+	3.33	
B	3.00 *	Satisfactory graduate level work
B-	2.67	
C+	2.33	
C	2.00	Graduate work at a level worth credit, but of less quality than expected.
D	1.00	Graduate work at a level unacceptable for application to a graduate degree or certification program at UW-Stout.
F	0.00	Failure through coursework.
FN		Failure by never attending a course.
FS		Failure by stopped attending a course.
I		Incomplete
IP		In Progress
WS		Withdrawal Satisfactory
WU		Withdrawal Unsatisfactory
O		Outstanding — for approved courses only.
S		Satisfactory — for approved courses only.
U		Unsatisfactory — for approved courses only.
CR/NC		Credit/No Credit — for courses requested by student under the policy for CR/NC grading option.
W		Withdrawal from school assigned by Advisement Assistance Center personnel, or by Registrar to indicate a class was “never attended.”
NG		Temporary grade used until official grade is submitted.
* The minimum cumulative grade point average required for an Education Specialist degree program student is 3.25.		

#### Pass/Fail

Graduate students are not allowed to use the pass/fail system for any courses to be used to meet program requirements or for any courses identified as deficiencies at admission.

#### Incomplete – I

The grade “Incomplete” (I) may be given for failure to complete course work due to absence over which the student had no control. Incompletes not cleared within one year of the date of assignment, will be changed to an “F.” To receive credit after that time, the student must re-register for the course.

#### In Progress – IP

The grade “In Progress” (IP) may be given for research and independent study credits in cases where the student has been working on the problem, but requires more time to complete it. If the IP grade is not cleared within two years of assignment, the student must re-register for the course.

## Grade Point Average

All course work taken for graduate credit is counted in the calculation of the grade point average.

To maintain full academic standing, an accumulated grade point average of 3.0 for master’s degree students and 3.25 for Ed.S. students, is required. If less than the minimum is attained, the student will be placed on probationary academic standing.

Students may repeat a course, but all grade points earned for the course, no matter how many times it is taken, will be counted in the calculation of the grade point average.

A student on probationary academic standing who attains the minimum accumulated grade point average will be awarded full academic standing. A student on probationary academic standing who fails to attain the minimum accumulated grade point average will be dropped from the university.

A student dropped from the university is not eligible to enroll for graduate credit unless they reapply for admission, pay the application fee and are readmitted by approval of the Graduate School Exceptions Committee.

# Teacher Education and Other Professional Education Programs

## Teacher Education Programs

Teacher preparation and other professional education programs are housed in the School of Education. Students can prepare to become teachers in technical or community college settings or in PK-12 school settings. Students may also pursue programs leading to certification in pupil services areas, administration, and other education-related professions. The School of Education is accredited by the Wisconsin Department of Public Instruction. The School of Education serves as a resource center for students, schools, and the general public. The dean of the school serves as the certification officer at the University of Wisconsin-Stout.

Information about the School of Education, specific teacher education, and other professional education programs can be found online or by calling 715/232-1088.

You can find complete curriculum for specific licensure and non-licensure education programs in this bulletin under the specific program pages.

The UW-Stout School of Education Assessment System is designed so that candidate progress is reviewed at various points called benchmarks. The benchmark level reviews include:

- Benchmark I: Acceptance into Teacher Education/Pupil Services Program
- Benchmark II: Review of Progress; and
- Benchmark III: Final Review.

## Certification

Licensing agencies make periodic changes in requirements that may necessitate program changes. It is the student's responsibility to make certain they have the most current information from their program director or faculty advisor to assure a program plan that will lead to licensure.

Graduate-level certification programs at UW-Stout meet state certification requirements in Wisconsin. As certification requirements vary by state, students contemplating certification in another state may wish to clarify the acceptance of their program at UW-Stout with the state in which they plan to work.

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# Resources and Services

## Career Exploration

Students who are unsure about their choice of major should visit the Advisement Center. It is a "one-stop" information center where you can learn more about yourself while exploring various career options and academic programs. Walk-in service as well as individual appointments with career counselors are available. The Advisement Center is located in Room 11 of Bowman Hall and is open from 8:00 a.m. to 4:30 p.m., Monday through Friday. For more information, call 715/232-5306, or visit the Career Exploration web page.

## Career Services

Services for seniors, graduate students and alumni are provided by the Career Services Office (103 Administration Building, 715/232-1601). The goal of the office is to help each individual conduct an effective job search. Students are shown how to identify employment opportunities and approach them with effective resumes/vitas, cover letters, phone calls, and interview skills to increase the chances of receiving interviews and job offers. Students are encouraged to create an account and use the services in Stout CareerLink, attend group workshops or meet individually with a career services counselor. The office is open from 7:30 a.m. to 4:30 p.m. daily.

Additional information is available on the Career Services website.

## Child Care Service

The School of Education's Child and Family Study Center provides educational child care services for children from six weeks to six years of age. The center is open from 7:30 a.m. to 5:30 p.m., Monday-Friday, in accordance with the university calendar year. The center offers full day, morning and afternoon sessions with one to five days a week options. For more information about enrollment, contact the center at 715/232-1478, e-mail [cfsc@uwstout.edu](mailto:cfsc@uwstout.edu) or visit the Child and Family Study Center website.

## Computer Services

Technology and Information Services (TIS) provides a variety of services in support of graduate student and faculty research. Some of those services include statistical consulting, assistance with the Statistical Package for the Social Scientist (SPSS) software for statistical analysis, and data preparation and input through either optical scanning of mark-sense forms or hand input. Numerous personal computers are available in classroom buildings and the Library Learning Center. Internet access for research purposes and electronic mail are available on all of these machines, as well as through local dial-up remote access. All services are provided free for graduate student unfunded research. There is a minimal fee for printing in the Library Learning Center.

Additional information is available online at [tis.uwstout.edu](http://tis.uwstout.edu).

## Counseling Center

The Counseling Center (Bowman Hall, 715/232-2468) offers counseling (for individuals, couples and groups), educational programs and workshops, self-help resources, and consultation to the campus community — with a mission of contributing to the intellectual, emotional and relational health and development of students. All counseling records are kept strictly confidential and are not part of university records.

For more information, stop by our office in 410 Bowman Hall, call us at 715/232-2468, or visit the Counseling Center website.

## Disability Services

If you are in need of special services, accommodations or academic adjustments because of a physical, hearing, visual, emotional or learning disability, you need to check with the Disability Services office to inquire into and arrange for services. To ensure that services are available in a timely and consistent manner, UW System Regent policy requires that each student contact the office as far in advance as possible and provide appropriate documentation of the disability. For more information, call 715/232-2295, visit 206 Bowman Hall, or visit the Disability Services website.

## Health Services

Student Health Services is located at the north end of the campus, across from Wigen Hall, and is open during the academic year from 7:45 a.m. to 4:30 p.m., Monday through Friday; 12 to 4:30 p.m., Monday through Friday during WinTerM and closed weekends, holidays, school breaks and during the summer months (June – August). Student Health Services is an outpatient health care facility that provides care to registered students. Appointments can be made by calling 715/232-1314. The student health fee covers the majority of the services received. Additional fees may be charged for specific procedures based on complexity/severity, medication and laboratory test. Flexline, Visa/MasterCard, check or cash are all accepted as methods of payment.

More information is available on the Student Health Services website.

### **Off-Campus Housing**

Graduate students who choose to live in off-campus housing may obtain information from a variety of sources. The Stout Student Association Office (141 Memorial Student Center, 715/232-1450) maintains an online list of current off-campus housing which is updated every other week. Other sources of local housing information are the Stoutonia, Dunn County News, the Menomonie Shopper and the Dunn County Reminder which are available from local merchants.

Graduate students planning to live off campus will find it useful to visit Menomonie to secure the type of housing desired.

All dining service options available to residence hall students may be contracted for separately by off-campus students. Learn more on the Dining Services website.

### **Parking**

Parking on university land is regulated throughout the entire year, including those times when school is not in session. Parking requires display of a permit or payment of a meter when hours of regulation are in effect. Hours of regulation are posted at the entrance to each parking lot. Call the Parking Services Office at 715/232-1792 to request a permit or to inquire about parking services.

Additional information is available at the University Parking Services website.

### **Residence Halls and Dining Services**

Coeducational residence halls provide accommodations for 2,900 undergraduate and graduate students. Students can indicate their preferences for a particular environment and roommate. One hall is designated for upperclassmen, graduate and nontraditional students, another offers year round accommodations. Some single rooms are available during the academic year. During summer sessions, students are assigned single rooms unless a specific roommate is requested. To obtain a contract for the academic year, visit

our website, or send an e-mail to [housing@uwstout.edu](mailto:housing@uwstout.edu) and one will be put mailed to you. Summer housing requests can be made online as well. The Housing and Residence Life Office can also be reached at 715/232-1121.

Student rooms are carpeted and furnished with a microwave oven, refrigerator, two single beds, dressers, bookcases, desks and study chairs. The rooms are approximately 11 feet by 15 feet. Coffee makers, hot pots and popcorn poppers with unexposed elements are permitted in student rooms. Network access in the room is available via a network card. Cable TV is provided as well as local phone service, you must provide your own phone. Residence basements provide access to personal computers with laser printers, a laundry room, television room, kitchenette, study rooms and a game room. There are eight weight rooms and two saunas located in the residence halls. The reception desks offer many services and a variety of equipment including tools, vacuum cleaners, cooking equipment, movies, and sports equipment. More information, including current rates is available on the University Housing website.

Students who live on campus during the academic year choose a dining service plan from a variety of options. Information is available on the University Dining Services website.

### **Learning and Information Technology Services**

Learning and Information Technology (LIT) is a support organization dedicated to providing efficient and effective state-of-the-art learning and information technology solutions and services to students, faculty, and staff for instruction, administration, and public service in support of the University's mission. Learn more about services available to students at the Learning and Information Technology Services website.

### **Textbooks**

Some textbooks and other required resources for your classes are available for loan at this service. Instructional Resources Service (IRS) is located on the west side, second floor, of the Robert S. Swanson Learning Center. Required resources may be checked out and are due the last day of the class. Resources are also available for purchase. If you have any questions or need assistance, feel free to stop in or call 715/232-2492. Additional information is available on the Instructional Resources Service website.

### **University Centers**

University Centers are welcoming gathering places that encourage age involvement, interaction and learning. Since you'll spend three quarters of your time outside of the classroom, extracurricular and co-curricular activities that contribute to intellectual, professional and personal growth can be a valuable partner to academics.

Memorial Student Center is a community center for members of the UW-Stout community — students, faculty,

staff, administration, alumni and guests. It is a place to get to know and understand and appreciate one another. Join an organization to plan events for the campus or become a student staff member and gain work experience and knowledge. Our staff helps to make your experience a memorable one.

### **Memorial Student Center**

The Memorial Student Center is here for you to “Live, Learn, Lead”! As the campus “community center,” the Memorial Student Center is a welcoming gathering place for students, faculty, staff administration, alumni and guest to gather, study, dine, play and relax. It is a place to get to know and understand one another. Our staff is dedicated to making your out of classroom experience a valuable part of your education.

The Memorial Student Center includes staffed and self service dining areas, a service, copy and information center, billiards and bowling, the University Bookstore, conference/reservations office and plenty of hang out space. The hallways proudly display UW-Stout student artwork and flags representing the home countries of our international students. Involvement and Leadership office provides service learning, programming and leadership opportunities and is located on the lower level. Students gain valuable professional experience by working jobs offered year round.

We are conveniently located at 302 10th Avenue, a major crossroad of the campus. You are invited and encouraged to use the facility, services, programs and activities offered by the Memorial Student Center. For more information about our services, call 715-232-1431 or visit the Memorial Student Center website.

### **The Involvement and Leadership Center**

The Involvement and Leadership Center, located in the Memorial Student Center, fosters a supportive environment that encourages and challenges students to become fully engaged in and enjoy campus life, to seek learning outside of the classroom and to prepare themselves as contributing citizens.

- **Student Organizations** You may choose from approximately 120 student organizations and a myriad of activities on campus, in areas as diverse as music, service, journalism, religion and politics. Student organizations help students continually develop their skills interests. A list of student organizations is online at [studentorgs.uwstout.edu](http://studentorgs.uwstout.edu).
- **Involvement and Leadership** provides significant learning experiences for students through meaningful service and leadership activities that benefit our community. Learn more online at [www.uwstout.edu/campuslife/getinvolved](http://www.uwstout.edu/campuslife/getinvolved).

**University Recreation** is a great way for you to stay active, develop friendships and learn lifetime skills while attending

UW-Stout. If you are into playing sports, rock climbing, strength training, kayaking and cardio classes, then look no further — University Recreation has it all.

You can be active in the following programs:

- **Intramural Sports** will let you exercise your competitive spirit. Join a team or create your own and challenge the rest of the university in the sport you love most. Organized leagues with tournament play and officiating allows for an exciting athletic environment.
- The **Health and Fitness Center** offers a state-of-the-art facility along with group fitness classes taught by instructors. If you need a little motivation or guidance, our knowledgeable staff of personal trainers is always available to help out. A 25-meter swimming pool is available for recreational use. This is a chance to achieve peak physical fitness.
- **Stout Adventures** will take you to the backcountry, up high on a rock face, or down a scenic waterway. Discover your sense of adventure and explore the wilderness around you. Those who enjoy climbing can take advantage of two 30-foot indoor climbing walls. Memberships are available to all students. Stout Adventures also facilitates an outdoor Adventure Challenge Course which consists of two 50-foot towers and nine low initiatives designed to challenge groups or individuals.
- **Sport Clubs** are another great way to show your competitive spirit, with up to 26 clubs to choose from. These sport clubs have been formed by individuals who are motivated by a common interest and desire to participate in a recreational activity. Many clubs compete regionally and nationally.

If you are looking for student employment, University Recreation employs 120 students yearly from intramural sports officials and lifeguards, to group fitness instructors, and adventure challenge course facilitators. Learn more at the University Recreation website or call 715/232-1392.

### **University Library**

The University Library has a collection of more than a million items, including online full-text resources, audiovisual materials, periodicals, and books. Access is available to more than 35 million items through universal borrowing from other UW libraries.

The library provides wireless and Ethernet connections for laptop users and has specialized equipment for printing, scanning, and e-portfolio work. A variety of equipment is also available for checkout including laptop computers, multimedia projectors and digital cameras. More than 100

desktop computers are on hand in the Library. The library provides an inviting atmosphere for study and contemplation. A food cart is available in the lobby during the academic year. Lounge furniture, quiet study spaces and group study rooms are available throughout the library. The library is open 90.5 hours per week with adjusted open hours in the summer and at times when no classes are offered. Customer service oriented Library Staff is available to assist users in their quest for information. More information is available on the University Library website.

### **Veterans Services**

The Registration and Records Office provides assistance to veterans. This office provides veteran students with current information on veteran's affairs, coordinates special educational programs for veterans, and maintains liaison with the Veterans Administration, Department of Veterans Affairs and the County Veterans' Service Officers. All veterans receiving assistance must file the appropriate forms with this office to be officially certified to receive benefits.

For more information, contact Veterans Services, 109 Bowman Hall, 715/232-1233, [veteranstudents@uwstout.edu](mailto:veteranstudents@uwstout.edu), or online.

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## **Glossary of Terms**

### **Academic Probation**

A condition of attendance under which students are allowed to remain at the university with the understanding that they meet set academic standards within a set period of time. Failure to meet the standard results in dismissal from the university.

### **Add and Drop**

The process of changing a course schedule by dropping or adding a course during the prescribed time at the beginning of each semester.

### **Audit**

Students register and attend class, but do not take examinations. No credit hours are earned, and the cost of the class is less than regular tuition. "AU" will appear on the grade record.

### **Bachelor's Degree**

The degree received after completing a specific program of undergraduate study and fulfilling all graduation requirements.

### **Certification**

A recognition of professional achievement bestowed by an outside organization.

### **College**

An administrative division of the university housing academic departments, degree programs and other administrative units. At UW-Stout these are: Arts, Humanities and Social Sciences; Education, Health and Human Sciences; Management; and Science, Technology, Engineering, and Mathematics.

### **Concentration**

A component within a degree program that examines a selected area of the student's chosen professional field in greater detail. A concentration may be part of the university's planned offerings or designed by the student.

### **Corequisite**

A course that must be taken at the same time as another course.

### **Credit Hour**

An amount of work represented in intended learning outcomes and verified by evidence of student achievement that reasonably approximates: [1] At least one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester hour of credit, or the equivalent amount of work over a different amount of time; or [2] At least an equivalent amount of work as required in part one [1] of this definition for other academic activities as established by UW-Stout, including distance education, online, hybrid, or other indirect faculty instruction, laboratory work, internships, co-op experiences, studio work, and other academic work leading to the award of credit hours.

### **Credit Load**

The number of credits a student registers for during a semester.

### **Degree Program**

A planned program of study leading to a degree.

### **Degree-Seeking Student**

A student who has been admitted to a degree program and is seeking degree.

### **Disadvantaged**

Deprived of basic social rights and security through poverty, discrimination, or other unfavorable circumstances.

### **Educationally Disadvantaged**

Deprived of a socially adequate education through poverty, discrimination, or other unfavorable circumstances.

### **Emphasis**

A designated group of courses within a degree program that affords increased exposure to a specific area in the student's chosen professional field.

**Full Time Student**

A graduate student who enrolls for at least nine credits during the fall or spring semester.

**Good Standing**

Maintaining an academic record that meets UW-Stout's requirements; eligible to continue at or return to the university, or to transfer to another institution.

**Grade Point**

The numerical value given to letter grades, based on an "A" receiving four points, a "B" three points, and so on.

**Grade Point Average (GPA)**

The numerical value assigned to a student's scholastic average, computed by dividing the total grade points by the total credit hours attempted.

**Grant**

Financial assistance that does not have to be repaid.

**Hold**

A barrier placed on a student's ability to register for classes or receive transcripts as a result of unpaid monetary obligation or other action by the university.

**Incomplete**

The grade assigned only if a student is temporarily unable to complete course requirements because of unusual circumstances.

**Independent Study**

A course of study designed by a student and undertaken outside the classroom, under the supervision of one or more faculty.

**Interdisciplinary**

Drawing on two or more disciplines in a single course or program.

**Internship**

Work in a company or agency related to a student's degree program and career plans, usually for academic credit and often also for payment.

**Major**

A planned program of study leading to a degree. Term is often used interchangeably with degree program.

**Major studies**

A component within a degree program that provides fundamental education for a particular career discipline.

**Practicum**

Directed work experience related to a program of study.

**Prerequisite**

A course or experience that must be successfully completed before enrollment in a designated course.

**Professional Development Certificate**

An alternative academic credential for individuals seeking to obtain new knowledge and skills or to update their knowledge and skills in a specific area.

**Professional Electives**

Required credits that are not prescribed by the program by designation of a specific course, but that are professional and specific in their content as they pertain to the major.

**Registration**

The process of enrolling in and paying for courses each semester.

**Selectives**

A group of courses from which a student must choose a prescribed number of credits to meet a program requirement.

**Semester**

A unit of time, generally 16 weeks long, in the academic calendar.

**Special Student/Non-Program Student**

A nondegree-seeking student who holds a bachelor's degree and enrolls in graduate courses for credit.

**Transcript**

An official copy of a student's permanent academic record.

**Transfer Credit**

Academic credit earned at another accredited institution and accepted toward a UW-Stout degree.

**Tuition**

The amount of money that must be paid for a course.



# Applied Psychology

## Introduction

**Master of Science Degree** This two-year 'hands-on' applied program is designed around a core of psychological theories and methods, with three concentration areas: Health Promotion and Disease Prevention, Industrial/Organizational Psychology, and Evaluation Research. The core program, taken by all students, focuses on the development of critical thinking and data driven assessment and decision making. It provides students knowledge, experience, skills and abilities needed to apply the theories and methods of psychology to the identification and solution of a variety of complex individual and organizational problems.

The concentrations provide more in-depth classroom and experiential learning in the given focus area. *Health Promotion and Disease Prevention* focuses on health promotion intervention development and evaluation; health services research; health policy development and evaluation; and behavioral epidemiology. *Industrial/Organizational Psychology* focuses on the behavior of people at work, specifically employee motivation, personnel research, recruitment and selection, and job design methodology. The concentration gives you the tools to work in human resources, training and development, or business consulting. *Evaluation Research* focuses on advanced training in program and policy evaluation and professional preparation for evaluation consulting. A majority of students complete requirements for dual concentrations within the two-year program.

Capstone experiences include a consulting focused practicum, an internship and an independent research project. With faculty advisement, students will be allowed to select additional experiences appropriate for their unique personal and professional development, based on previous educational and professional experiences and goals.

## Admission

The Applied Science program requires completion of fifteen semester credits of psychology in addition to Graduate School admission requirements. Five of these credits must be from research methods courses and three credits must be from statistics courses. Applicants must have an overall grade point average of 3.0. Applicants may be admitted on probationary status if their overall grade point average is less than 3.0. These exceptions are individually negotiated with the recommendation of the program admission committee and approval of the Graduate School. Three letters of recommendation, with one from a former post-secondary instructor is required, as are a statement of intent, a writing sample and a resume. Program application materials are available online at [www.uwstout.edu/programs/msap](http://www.uwstout.edu/programs/msap).

The program accepts applications and grants admission for fall term start only. To be given full consideration application materials must be received by February 1. After committee review, notification of acceptance will be made by early March for fall term.

## Primary Evaluation Criteria and Process

The primary criteria used to evaluate program and academic progress include: course grades, research progress and completion, degree candidacy and program plan approval; intent to graduate; program completion certification, and the following program specific processes: formal mid-program performance evaluation, related work experience.

## Requirements

The requirements for this degree include: (a) completion of at least 42 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better and a minimum of 24 credits in courses open only to graduate students—700 and 800 level; (b) successful completion of the 30 credits in the core and 12 credits from one of the concentrations; (c) practicum, internship and thesis completion; and (d) approval for degree candidacy at the appropriate time.

### Required Core

Theory and Research	21 credits
PSYC-707 Applied Social Psychology .....	3
PSYC-750 Foundations of Evaluation Research .....	3
PSYC-770 Thesis – Applied Psychology or	
PSYC-735 Applied Psychology Field Problem .....	2-6
PSYC-790 Research Design and Analysis I .....	3
PSYC-792 Research Design and Analysis II .....	3
PSYC-793 Psychometrics of Test Construction .....	3

Professional Development	9 credits
PSYC-710 Applied Psychology Seminar .....	1
PSYC-711 Applied Psychology Seminar II .....	1
PSYC-712 Applied Psychology Seminar III .....	1
PSYC-752 Practicum in Applied Psychology .....	3
PSYC-890 Applied Psychology Internship .....	3

### Concentrations

Evaluation Research	12 credits
HDFS-575 Grantsmanship for Non-profits or	
INMG-750 Organizational Development .....	2-3
PSYC-751 Applications of Evaluation Research .....	3

*Students will choose 6-7 credits of selectives with faculty advisement and program director's approval.*

Health Promotion and Disease Prevention	12 credits
PSYC-771 Psychological Foundations of Health Promotion .....	3
PSYC-772 Psychological Applications of Health Promotion .....	3

*Students will choose 6 credits of selectives with faculty advisement and program director's approval.*

Industrial/Organizational Psychology	12 credits
PSYC-781 Advanced Industrial Psychology .....	3
PSYC-7XX Organizational Psychology .....	3

*Students will choose 6 credits of selectives with faculty advisement and program director's approval.*

# Career and Technical Education

## Introduction

**Master of Science Degree** The graduate program in career and technical education is designed to increase the professional competence of those who plan to serve in a high school or post high school program as a teacher, coordinating teacher, coordinator, supervisor, Career and technical education coordinator or administrator of vocational education. Learning experiences in the immediate professional setting include internship, outreach courses and independent study.

## Admission

To be admitted with full status to this program, the applicant must hold a bachelor's degree from an accredited college and have an overall grade point average of at least 2.75. Applicants with undergraduate degrees and certification in the various subject areas of vocational-technical education are generally eligible.

Applicants with appropriate subject matter backgrounds, but who do not have the required professional education, will need to complete, for undergraduate credit, at least one appropriate methods course. This should be completed early in the program. Applicants for the emphasis in Career and Technical Education Coordinator (CTEC) must complete, for undergraduate credit, a course in the principles, issues and/or philosophy of vocational-technical education. (*Request additional admission information from the program director for the CTEC concentration.*)

Prior to the awarding of the degree, the student must present evidence of the necessary amount and kind of occupational experience as specified by the appropriate state certifying agency.

A deficiency in these admission requirements does not preclude admission, but may require completion of additional undergraduate work and/or increase the amount of graduate credit required to earn a degree.

## Primary Evaluation Processes

The primary processes used to evaluate program and academic progress include course grades, research evaluation, certification of program completion, and the following program specific processes: application; degree candidacy; and intent to graduate.

## Requirements

The requirements for this degree include (a) completion of at least 30 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better; a minimum of 15 credits must be in courses open only to graduate students – 700 level; (b) approval for degree candidacy at the appropriate time; and (c) a course distribution which is outlined here:

### Preparation in Research

#### 7-11 credits

TECED-739	Introduction to Research in Vocational/Technology Education.....	1
CTE-735	Problems in Vocational Education ( <i>required in CTEC</i> ) or	
CTE-770	Thesis-Vocational Education .....	2-6
EDUC-740	Research Foundations .....	4

### Concentrations

#### Teaching

#### 30 credits

CTE-502	Principles of Career and Technical Education .....	2
CTE 708	Issues in Career and Technical Education.....	2
EDPSY-730	Advanced Psychology of Learning .....	2
EDUC-740	Research Foundations .....	4
ICT-732	Technology Futures .....	2
TECED-739	Introduction to Research in Vocational/Technical Education .....	1

Choose one of the following research options:

CTE-735	Problems in Career and Technical Education.....	2
EDUC-770	Thesis .....	2
XXX-XXX	Electives .....	11-15

#### Administration

#### 30 credits

CTE-502	Principles of Career and Technical Education .....	2
CTE-708	Issues in Career and Technical Education.....	2
EDPSY-730	Advanced Psychology of Learning .....	2
EDUC-740	Research Foundations .....	4
ICT-732	Technology Futures .....	2
TECED-739	Introduction to Research in Vocational/Technical Education...	1

Choose one of the following research options:

CTE-735	Problems in Career and Technical Education.....	2
EDUC-770	Thesis .....	6
XXX-XXX	Electives .....	10-14

#### Marketing and Business Education

#### 30 credits

CTE-502	Principles of Career and Technical Education .....	2
CTE-560	Coordination of Work-Based Learning .....	3
EDPSY-730	Advanced Psychology of Learning .....	2
EDUC-740	Research Foundations .....	4
MBE-701	Issues in Marketing and Business Education.....	2
MBE-702	Improving Methods and Materials for MBE .....	2
TECED-739	Introduction to Research.....	1

Choose one of the following research options:

CTE-735	Problems in Career and Technical Education.....	2
EDUC-770	Thesis .....	6
XXX-XXX	Electives .....	8-12

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## Career and Technical Education Coordinator 33 credits

### Required Coursework

CTE-502	Principles of Career and Technical Education .....	2
CTE-560	Coordination of Work-Based Learning Programs .....	3
CTE-708	Issues in Career and Technical Education .....	2
CTE-710	Coordination/Supervision of CTE .....	2
CTE-746	Policy and Legal Issues for Career and Technical Education .....	2
CTE-784	Intern-Local Vocational Education Coordinator.....	2
CTE-797	Field Experience .....	1
EDUC-726	Administration.....	3
EDUC-741	Education Grant Proposal Development.....	3
EDUC-742	Program Evaluation.....	3
SCOUN-733	Lifespan Career Development.....	3
TECED-739	Introduction to Research in Career and Technical Education ..	1

### Research Requirement with Thesis

CTE-735	Problems in Career and Technical Education.....	2
EDUC-74	Research Foundations .....	4

### No Research Paper Option

Choose two courses, minimum of 6 credits:

INMG-600	Organizational Leadership.....	3
INMG-616	People Process Culture.....	3
INMG-750	Organizational Development.....	3
EDPSY-730	Advanced Psychology of Learning .....	2
EDUC-750	Curriculum Theory and Practice .....	2-3

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## Preparation for Further Development

The student should confer with the program adviser in choosing the elective credits to complete the 30-hour degree requirements. There is considerable flexibility in the program with regard to electives, and they may be taken as needed to fulfill the individual goals and objectives of the student. Generally, if appropriate to your goal, electives may be chosen from your technical field. Persons preparing to teach will select advanced courses in their subject field. This bulletin lists graduate level technical courses, which are available for graduate credit in certain individual situations. Students are urged to investigate advanced subject matter courses suitable to their particular teaching field; in some teaching areas, it may be desirable to transfer them from another institution. However, prior approval to take any course should be obtained.

# Career and Technical Education

## Introduction

**Education Specialist Degree** This program is 36 semester credits beyond the master's degree.

The program is for those who have a master's degree in technical education, industrial education, technology education, vocational education or equivalent. (*Equivalency meaning agriculture, business education, marketing education, family and consumer education, and trade and industrial education.*) It is also for those who have a master's degree and are a certified employee of a technical college or community college.

## Admission

Students seeking admission to the program should complete the following at least 30 days prior to the opening of the term in which they plan to begin their program.

1. File an Application for Admission.
2. Submit a current vita listing all pertinent biographical and educational data.
3. Present official transcripts of all college and university work completed certifying award of bachelor's and master's degrees in industrial education, industrial arts education, technology education, vocational education or an equivalent field with a cumulative grade point average of at least 3.25 on a four-point scale in all graduate work. Persons having master's degrees in other fields who are certified and employed in vocational-technical education are also eligible for admission. Transcripts need not be submitted for work completed at UW-Stout.
4. Provide evidence of at least two years of successful teaching experience and professional promise by requesting letters from at least two administrators or supervisors.

The Education Specialist Degree Program Committee, comprised of graduate faculty and an Ed. S. degree student, will review the candidate's credentials and make a recommendation relative to admission to the director of the Ed.S. degree program. The committee may recommend that certain standardized examinations be completed or that the candidate be interviewed by the committee. The director of the major will recommend admission with full or provisional status to the Graduate School.

After review of the application data, the Graduate School will assign program status and inform the student of it immediately.

- a. Full status will be granted to those who meet all admission requirements.
- b. Provisional status may be granted to those who do not fully qualify on some requirements. At the conclusion of the first term of enrollment, the status will be re-evaluated.
- c. Admission will be denied students whose qualifications do not meet the requirements and if the admissions committee decides provisional status is not warranted.

## Primary Evaluation Processes

The primary processes used to evaluate program and academic progress include course grades, research evaluation, certification of program completion, and the following program specific processes: application for admission; degree candidacy; final oral examination; and intent to graduate.

## Degree Program Supervision

For the first enrollment, the program director will aid in developing a class schedule in keeping with degree requirements. Prior to enrolling for a second term, the student will prepare a total program plan in keeping with degree requirements and the student's special needs.

At that time, the student will work with the program director to obtain a supervisory committee consisting of three members of the graduate faculty.

The committee will act on the appropriateness of the student's degree program, approve the proposed field study, administer the oral examination and recommend the award of the degree.

## Teaching Experience

This program is designed for people in education. It is felt that course work will be more significant for those who have some experience in teaching. Thus, no more than eight credits in the degree program may be completed prior to satisfying the requirement of two years of successful teaching experience.

## Requirements for the Ed.S. Degree

Prior to the award of the Ed.S. degree, the following requirements will be met:

1. Completion of an approved degree program of 36 semester credits with an overall grade point average of at least 3.25, and with a minimum of 18 credits which are at the graduate only level – 700 or 800 level.
2. Filing of an Intent to Graduate form at least seven weeks prior to the expected graduation date.
3. Completion of an oral examination on field study research prior to graduation.
4. Filing of an approved field study report and abstract at least one week prior to graduation.
5. Recommendation for the degree by the supervisory committee.
6. Approval of degree candidacy at the appropriate time.

Curriculum

The Ed.S. degree consists of three groups of courses and/or experiences as follows: industry and technology, applied research, and professional education. The industry and technology component consists of courses basic to the science of industry and technology and a field study. This component is intended to be flexible in order to afford candidates an opportunity to broaden themselves if their prior work has been narrow, or to study in depth a particular conceptual area of industry and technology if their prior work has been broad in nature. In this component, the advanced graduate student will have the opportunity to take additional physics, chemistry, mathematics, sociology, psychology and course work to develop a level of competence in one or two conceptual areas in their substantive teaching field. The Impacts of Technology course, required of all students in the program, permits the students to look at how their teaching area has had an effect on people and society. The culminating activity is a field study. The main purpose of the field study is to provide students with an opportunity to apply and synthesize the contents of their program. Education specialists are encouraged to select practical problems related to their professional appointment or, if not presently employed, to select a problem from their discipline.

The applied research component consists of course work in computer science, research design and procedures, and statistics. A holder of an advanced degree should have an intimate knowledge of research design, measurement and statistics, and a broad background in the problems associated with industrial and vocational education.

The professional education component consists of courses in the foundational areas of education and curriculum and instruction. There is a growing body of knowledge and research dealing with education and the instructional process. It is imperative that the education specialist be able to implement current innovative educational practices and thought into the curriculum and the teaching process.

The three components are shown here as they appear in the curriculum requirements for the degree.

Program Plan

To qualify for the Ed.S. degree requires that the student earn not less than 36 semester credits beyond the master's degree which will be distributed as follows:

Industry and Technology		
INMGT-7XX	Quality Improvement in Education .....	3
TECH-733	Impacts of Technology .....	3

Applied Research		
CTE-895	Field Study in Career and Technical Education .....	6
EDUC-816	Instrumentation for Research .....	3

Professional Education		
CTE-746	Seminar .....	2
EDPSY-850	Psychology of Development.....	3

Select one:		
CTE-708	Issues in Career and Technical Education .....	2
CTE-720	Policy and Legal Issues in Career and Technical Education .....	2
EDUC-726	Administration .....	3
EDUC-750	Curriculum Theory and Practice .....	3

Selectives

The student should confer with the program director in choosing selective credits to complete the 36-hour degree requirement. Students can specialize in one of several course sequences that we recommend in areas such as leadership, manufacturing, technology, program development and evaluation, training, or curriculum and instruction. There is considerable flexibility in the program with regard to selectives, and they may be taken as needed to fulfill the individual goals and objectives of the student.

# Career and Technical Education

**Doctor of Education Degree** The Educational Doctorate in Career and Technical Education (*Ed.D. CTE*) is the highest degree awarded at UW-Stout. Recognized nationally and internationally, UW-Stout's CTE programs attract students from across the country and around the world. The Ed.D. builds on UW-Stout's M.S. and Ed.S. Degrees in Career and Technical Education to prepare leaders who will provide vision, direction, leadership, and the day-to-day management of educational activities in technical colleges and other postsecondary settings as well as secondary divisions of CTE. The Ed.D. curriculum prepares graduates to set educational standards and establish the policies and procedures to achieve goals and to maximize student learning. Students acquire competencies that enable them to develop academic programs; monitor student progress; hire, train, motivate, and evaluate teachers and other staff; manage counseling and other student services; administer recordkeeping; prepare budgets; and handle relations with staff, parents, current and prospective students, employers, and the community.

Upon completion of this program, graduates will be able to:

- ▶ Effectively lead educational entities and communities for career and technical education
- ▶ Use, analyze, and synthesize data for program planning and decision making
- ▶ Engage in continuous quality improvement practices
- ▶ Develop faculty and staff to be leaders in their respective fields
- ▶ Secure and administer funding
- ▶ Promote and model ethical behavior appropriate to the profession
- ▶ Articulate a comprehensive philosophy of CTE that connects education, work, and economic development at all levels

## Admission

Students must have completed a master's degree program from a regionally accredited institution and completed specified coursework within GPA requirements. Students enrolling in this program should have experience as instructors, faculty, staff or leaders within the career and technical education field.

## Requirements

Students must complete a total of 60 credits. All required coursework must be completed within the seven year and residency requirements. Students may transfer up to 20 credits from a regionally accredited institution. It is up to the discretion of the program director to determine the suitability of transfer coursework to the degree. Students must maintain a 3.25 GPA throughout the doctoral program.

### Foundation Courses

#### 20 credits

CTE-901	Introduction to the EdD in CTE Program.....	2
CTE-902	Philosophy and Practice of CTE.....	3
CTE-904	Social and Economic Issues in CTE .....	3
CTE-905	CTE Curriculum Systems .....	3
CTE-911	Comparative Systems in CTE.....	3
CTE-913	Program Planning, Development, and Evaluation .....	3
CTE-725	Quality Improvement in Education .....	3

### Leadership Courses

#### 9 credits

CTE-903	Educational Leadership in CTE .....	3
CTE-912	Education Planning and Leadership .....	3
CTE-922	Strategic Planning and Administration in CTE.....	3

### Research Courses

#### 23 credits

CTE-906	Applied Statistical Analysis for Education .....	3
CTE-914	Research Seminar .....	2
CTE-915	Quantitative Research Methods.....	3
CTE-921	Qualitative Research Methods.....	3
CTE-995	Dissertation.....	12

### Electives

#### 8 credits



# Clinical Mental Health Counseling

## Introduction

**Master of Science Degree** The Clinical Mental Health Counseling program provides students with the assessment, diagnosis, prevention, and treatment skills necessary for helping with behavioral and emotional difficulties of clients from a diversity of backgrounds. Training in mental health counseling services includes the provision of principles and theories of counseling and psychotherapy, group dynamics, family systems theories, human and career development, and psychological assessment, as well as understanding and remediation of the causes of mental illness and dysfunctional behavior. Mental health counselors work with individuals, groups, couples, and families for the purpose of treating psychopathological conditions and optimizing human growth and development.

The Mental Health Counseling program is designed to prepare students for the National Counselor Examination (NCE) and meet the state of Wisconsin's requirements to become a Licensed Professional Counselor (LPC). It also allows the opportunity for students to develop specialized areas of training through various concentrations. These concentrations include: Alcohol and Drug Abuse Counseling; Career Counseling; Child and Adolescent Counseling; Eating Disorders; and Gerontological Counseling.

## Admission

To be admitted with full status to this program, the applicant must hold a bachelor's degree from an accredited college and have an overall grade point average of at least 2.75. Applicants may be admitted on probationary status if their overall grade point average is at least 2.5, but less than 2.75. Both the Graduate School Application form (*obtainable from the Graduate School office*) and a Program Application form (*obtainable from the program director*) must be submitted by each applicant and include the documents identified on each form. Applicants must have presented and filed all required admissions documents by February 1 for summer and fall terms, and October 1 for the spring term. After committee review and a group interview, notification of acceptance will be made by mid-March for summer and fall terms, and mid-November for the spring term. Students will be evaluated on the basis of academic performance, admissibility to the Graduate School, writing ability, level of experience in the human services field, applicability of educational experiences, letters of recommendation, the group interview process, and subsequent rankings of a screening committee.

## Requirements

The degree requires a minimum of 60 credit hours. Transfer credits may not exceed 20. A passing grade is required on the comprehensive examination taken near the end of the program. A master's research paper (*two credit Problems or six credit Thesis*) can be completed in lieu of the comprehensive examination. Students must be approved for degree candidacy at the appropriate time and follow an approved program plan, developed in conjunction with the program director. A minimum 3.0 grade point average must be maintained on all courses in the plan.

## Core Requirements

### 60 credits

COUN-788	Counseling Process Laboratory .....	3
COUN-750	Counseling Theory .....	3
COUN-752	Group Dynamics .....	3
COUN-715	Orientation to Mental Health Counseling .....	3
COUN-725	Social and Cultural Issues in Counseling .....	3
COUN-723	Psychopathology: Assessment and Treatment Planning .....	3
COUN-721	Alcohol and Drug Abuse Treatment Programs.....	3
COUN-754	Assessment and Clinical Interviewing in Counseling.....	1
COUN-789	Cognitive- Behavioral Therapy .....	3
COUN-793	Mental Health Counseling Practicum.....	3
COUN-794	Mental Health Counseling Internship .....	6
HDFS-742	Lifespan Family and Human Development .....	3
MFT-751	Contemporary Couples and Family Therapy .....	3
REHAB-715	Research in Rehabilitation and Counseling .....	3
SCOUN-733	Lifespan Career Development .....	3
SPSY-753	Psychometric Theory and Application .....	2
Electives	(courses may be selected from a concentration or with the approval of the program director) .....	12

## Concentrations

Students select one of the following concentrations:

### Alcohol and Other Drug Abuse Counseling 10 credits

COUN-720	Psychopharmacology .....	2
COUN-722	Advanced Topics in Compulsive Behavior Disorders.....	3
COUN-724	Adolescent Substance Abuse Counseling .....	2
MFT-745	Treating Drug Abuse, Intimate Violence and Self Harm .....	3

### Career Counseling 7 credits

REHAB-683	Vocational Counseling Issues .....	2
CTE-502	Principles of Career and Technical Education .....	2
REHAB-717	Occupational Analysis and Job Placement .....	3

### Child and Adolescent Counseling 10 credits

COUN-761	Counseling Children and Adolescents .....	3
SCOUN-647	Emotional and Behavioral Problems of Children and Adolescents .....	3
SCOUN-705	Play Therapy .....	2

Select one of the following courses:

COUN-647	Assessment and Treatment of Eating Disorders or	
REHAB-533	Adolescent Substance Use and Abuse .....	2

### Eating Disorders 9 credits

COUN-647	Assessment and Treatment of Eating Disorders.....	2
COUN-722	Advanced Topics in Compulsive Behavior Disorders .....	3
COUN-745	Treating Personality Disorders .....	1
MFT-745	Treating Drug Abuse, Intimate Violence and Self Harm .....	3

### Gerontological Counseling 10 credits

HDFS-540	Human Development Late Adulthood .....	3
COUN-694	Counseling Older Persons .....	3
HDFS-642	Geriatric Functional Assessment .....	4

Must earn a "B" or better in all courses.

# Conservation Biology

## Introduction

**Professional Science Master's Degree** The Professional Science Master's degree in Conservation Biology combines conservation science curriculum with a professional component designed to provide graduates with the necessary skills for a career in business, industry, government, or nonprofit agencies. The program offers opportunities in molecular ecology, water quality/limnological sciences and fishery sciences. Molecular ecologists strive to preserve species diversity in fragmented habitats, reintroduce populations to native territory as part of planned management strategies, and protect native populations threatened by invasive species. Biodiversity is the Earth's greatest nonrenewable resource. Due to increasing population size, global climate change and the substantial rise in global trade practices, conserving biodiversity at the population level, species level, or ecosystem level is one of the chief concerns of scientists. There is significant industry and agency need due to accelerated degradation of water resources, increasing population size, concerns regarding global climate change, the associated ecological impacts on bodies of water, and increasing demands on industry to comply with environmental laws and regulations. Blending research and theory with practice produces innovative solutions to real world problems, benefiting students and the growth of the economy.

## Admission

Admission requirements for the program include:

- ▶ a bachelor's degree in biology, environmental science or a science-related field from an accredited institution;
- ▶ a grade point average of 3.0 or higher.

Those with a non-science-related degree may be admitted as "Probationary Status" upon completing one of the three following conditions: completion of select coursework with a grade of "B" or better or evidence of equivalent courses/professional knowledge.

## Requirements

Requirements for the degree include a minimum of 30 semester hours comprised of graduate-level courses and a field experience or internship. Students build on the graduate level biology core by selecting additional courses that are tailored according to their individual career goals.

### Core Requirements

#### 17 credits required

BIO-730	Conservation Biology .....	4
BIO-749	Graduate Field Experience.....	1
BIO-735	Field Problems in Conservation Biology .....	6
STAT-730	Biostatistics I.....	3
STAT-731	Biostatistics II.....	3

### Selectives

#### 9 credits required

Choose 9 credits from the following, other course approved by program director:

BIO-733	Conservation Genetics.....	3
BIO-625	Proteomics .....	3
BIO-650	Aquatic Ecology.....	4
BIO-7XX	Advanced Limnological Approaches .....	3
BIO-662	Environmental Toxicology .....	3
BIO-720	Toxicological Effects in Humans .....	3
CHEM-543	Environmental Chemistry .....	3

### Professional Selectives

#### 5 credits

Choose 5 credits from the following, or other course approved by program director:

BUACT-730	Financial and Cost Accounting.....	3
BUMGT-760	Strategic Planning and Deployment.....	2
ENGL-615	Technical Writing .....	3
INMGT-718	Advanced Quality Management.....	3
SPCOM-710	Advanced Interpersonal Communication for Professionals .....	3



# Construction Management

## Introduction

**Master of Science Degree** The graduate program in construction is a high quality, challenging academic program that responds to the changing needs of the construction industry. The curriculum is designed to incorporate such principles as the implementation of sustainable design materials, the development of green building technologies and the implementation of methods to reduce energy consumption. The goal of the program is to integrate applied learning, scientific theory, humanistic understanding, creativity and research to solve real-world problems in construction in order to help grow the economy and serve the global construction industry. The program prepares lifelong learners to become ethical and responsible leaders in pursuing studies in the built environment. At program completion, graduates will be able to demonstrate mastery of the following:

- ▶ Critical thinking and creativity in problem solving and decision making in construction.
- ▶ Effective and professional oral and written communications through the use of information and communication technology.
- ▶ Principles of leadership in business and management including advanced construction management practices, complex project decision making and associated risk management.
- ▶ Professional ethics including application to construction situations and choices.

## Admission

To be admitted with full status to the program, the applicant must have a bachelor's degree in construction or in a construction-related field from an accredited institution, a grade point average of 3.0 or higher, and demonstrated experience in the discipline as evidenced by a resume.

## Primary Evaluation Processes

The primary processes used to evaluate program and academic progress include course grades, research topic approval and evaluation, and program specific assessments.

## Requirements

Requirements for the degree include a minimum of 30 semester hours comprised of graduate-level courses. Students must fulfill a research assessment component through the completion of a thesis paper or professional seminar and research paper in addition to required coursework as follows:

### Research Preparation

**3 credits required**

INMG-700 Organizational Research Methods.....3

### Professional Component

**21 credits required**

*Students must complete 7 of the following courses:*

AEC-671	Project Scheduling and Cost Control .....	3
AEC-701	Construction Project Delivery Systems or	
AEC-638	Contract Requirements and Specifications .....	3
AEC-702	Logistics and Project Planning or	
AEC-703	Quality Management in Construction or	
AEC-704	Construction Strategy, Economics and Finance .....	3
AEC-705	Environmental Concerns in Construction .....	3
AEC-706	Facilities and Real Estate Project Management or	
AEC-707	Metrics and Benchmarking.....	3
AEC-708	Succession Planning in Construction .....	3
INMG-616	People Process Organization Cultures .....	3
INMG-718	Advanced Quality Management.....	3
INMG-765	Program Management.....	3
RC-592	Construction Risk Management .....	3
RC-725	Process Hazard Management.....	3
RC-592	Construction Risk Management .....	3

### Research Assessment

**6 credits**

*Students must complete one of the following options:*

#### Plan A:

AEC-770 Thesis ..... 6 credits

#### Plan B:

AEC-730 Professional Seminar ..... 3 credits

AEC-735 Research Paper..... 3 credits

# Design

## Introduction

**Master of Fine Arts** The MFA in Design provides a unique and collaborative program that engages students across a wide range of disciplines. The MFA is a terminal degree that qualifies graduates for promotion and tenure in most educational institutions.

Graduates of this degree program will: 1) demonstrate professional competence in the creation of works in art and design; 2) produce work that shows the integration of knowledge and skills in a selected area of research; 3) complete studies associated with an area of study and 4) produce a final project that demonstrates mastery of the field/discipline.

Options provided in this program encourage collaboration across other disciplines to meet the anticipated needs of students, higher education, and the practicing design profession. Students are prepared to teach design at colleges and universities as well as work in a range of professional positions in business and industry.

Graduates of the MFA in Design will be able to: 1) understand the global and cultural context of design; 2) collaborate across disciplines to achieve innovative solutions; 3) demonstrate an awareness of current design practice; 4) identify key issues that respond to design, aesthetics, creativity and societal need; 5) perform theoretical and philosophical research; 6) anticipate and bring focus to issues relevant to the future; 7) practice ethical research including protection of subjects in the design process; 8) employ sustainable and environmentally responsible approaches; 9) engage in independent and focused research; 10) participate in practice-based and research-led design exploration; 11) evaluate and articulate design solutions and 12) disseminate new knowledge.

## Admission

To apply for admission to the MFA in Design program, students will submit the following materials:

- Completed Graduate School Application
- Completed MFA in Design Program Application – The application will require a visual portfolio, a personal statement of goals and objectives for graduate study, a resume, and three letters of recommendation.

The minimum GPA for entrance is 3.0. Applicants should have obtained, at a minimum, a bachelor's degree in design, art or a related field prior to applying to the program.

In addition to the Graduate School processing of applicants, the MFA in Design program director will convene a selection committee comprised of at least five tenured/tenure-track faculty members from the School of Art and Design to review application materials and recommend admission.

## Requirements

The requirements for this degree include (a) a minimum of at least 60 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better, with a minimum of 30 credits at 700-level or above, and a minimum of 39 credits in studio-based courses, (b) successful creative thesis project completion, (c) approval for degree candidacy at the appropriate time, (d) program requirement completed in seven years.

### Core Curriculum

#### 30 credits required

DES-700	Design Seminar I .....	3
DES-710	Ethics in Design .....	3
ARTH-720	History of Design Seminar .....	3
ARTH-756	Special Topics in Design History .....	3
DES-XXX	Research Strategies in Design .....	3
DES-712	Sustainable Design Practice .....	3
DES-XXX	Design Education and Practice .....	2
DES-XXX	Design Seminar II .....	3
DES-XXX	Creative Thesis Prep .....	3
DES-XXX	Creative Thesis Project .....	6

### Focus Curriculum

#### 30 credits required

ART-XXX	Art Studio electives (5XX or 6XX) or	
DES-XXX	Design electives (5XX or 6XX) .....	21

*Selected art/design studios supporting focus of study as approved by graduate program director; must be 500-level or above.*

XXX-5XX	Focus electives (5XX or greater) .....	9
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*Selected cross-disciplinary work supporting focus of study; 4 credits must be studio based and approved by graduate program director.*

# Education

## Introduction

**Master of Science Degree** The purpose of the education program is to prepare individuals to work as professional teachers, or to enhance the skills they already have. The focus of the course work in the program is on the learner, teacher behavior, teaching-learning processes, research and evaluation. The program is open to professionals who provide instruction in any discipline or work with learners at any age level. The open concentration provides flexibility for students to choose course work which promotes their professional development goals.

A unique program is available for individuals who are interested in obtaining their teacher certification in Special Education/Cognitive Disabilities, grades K-12, while pursuing the education degree. Students do not need an undergraduate teaching degree to qualify for this program. In addition to the required course work for the education degree, an individualized plan is developed to meet Department of Public Instruction standards. The number of credits to qualify for certification will vary, depending on each student's undergraduate and graduate experiences. If students do not have a teaching undergraduate degree, they must complete all certification and degree requirements before being recommended for certification. At least 12 special education credits plus student teaching must be completed at UW-Stout to be recommended for certification.

## Admission

To be admitted with full status to this program, the applicant must (1) hold a bachelor's degree from an accredited institution; (2) have an overall grade point average of at least 2.75, or an average of at least 2.90 in the last one-half of the undergraduate work. Applicants with an overall grade point average ranging from 2.5 to 2.75 who are seeking teacher certification may be considered for probationary admission. Enrollment is open throughout the year.

Applicants must provide both the Graduate School application form and the M.S. in Education program application form, including documents identified on the forms. Both forms are available online at [www.uwstout.edu/programs/mse](http://www.uwstout.edu/programs/mse).

## Primary Evaluation Processes

The primary processes used to evaluate program and academic progress include course grades, research evaluation, certification of program completion, and the following program specific processes: program application; related work experience; degree candidacy; and intent to graduate.

## Requirements

The requirements for this degree include: (a) completion of at least 30 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better; a minimum of 15 credits must be in courses open only to graduate students – 700 level; (b) approval for degree candidacy at the appropriate time; (c) satisfactory completion of thesis or problems in education; and (d) a course distribution as outlined here:

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### Professional Core

#### 11 credits required

EDUC-745	Assessment for Learning .....	3
EDUC-782	Instructional Analysis .....	4
EDUC-790	Professional Portfolio Development.....	2
EDPSY-730	Advanced Psychology of Learning for Instruction or	
EDUC-603	Educational Psychology of the Adult Learner .....	2
EDUC-750	Curriculum Theory and Practice .....	3

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### Research

#### 5 credits required

EDUC-729	Introduction to Educational Research .....	1
EDUC-780	Action Research .....	4

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### Electives

#### 11 credits required

# Family Studies and Human Development

## Introduction

**Master of Science Degree** The Family Studies and Human Development program is intended for individuals with a strong interest in the study of family and human development. The focus of the program is the development of the individual across the lifespan with an emphasis on family system processes and relationships. The program offers flexibility in the elective courses so students in consultation with the program director can build a plan that is compatible with their own interests and career goals. The department offers coursework and faculty expertise in gerontology, work/family issues, family policy, family resource management, child and adolescent development, family stress and abuse, and program planning.

The program provides students the opportunity to learn with a cohort of students. Cohort groups will learn and study together as they complete the six required courses. Required courses will combine on-campus and e-learning methodologies. Content and delivery of coursework is related to the following objectives:

- Provide career preparation by challenging and assisting students in developing innovation leadership skills in family studies and human development related careers.
- Increase the graduate student's capacity for independent action in scholarly and professional pursuits.
- Develop an in-depth knowledge built on undergraduate work and experience.
- Motivate students to survey family studies and human development related literature and apply this knowledge to practical, theoretical and academic problems.
- Provide students with skills in conducting independent and creative research.

## Primary Evaluation Processes

The primary processes used to evaluate program and academic progress include course grades, research evaluation, certification of program completion, and the following program specific processes: program application; student advisement; residency; program plan; degree candidacy; and intent to graduate.

## Admission

To be admitted with full status to this program, the applicant must hold a bachelor's degree from an accredited college and have an overall grade point average of at least 2.75. Applicants with an overall grade point average of 2.5 to 2.75 may be considered for probationary admission. This bachelor's degree will generally have been earned in the major areas of home economics.

## Requirements

The requirements for this degree include completion of at least 30 hours of graduate credit with an overall grade point average of 3.0 or better. A minimum of 15 credits must be in courses open only to graduate students — 700 or 800 level. Students must be approved for degree candidacy at the appropriate time.

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### Professional Core

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#### 17-21 credits required

HDFS-704	Child/Family Services .....	2
HDFS-715	Theories of Family Processes.....	2
HDFS-728	Family Life Issues.....	3
HDFS-746	Theory Based Research Methods .....	3
HDFS-740	Special Problems in Family Life Education.....	2
HDFS-742	Lifespan Family and Human Services Seminar .....	3
HDFS-735	Problems in Family Studies or	
HDFS-770	Thesis in Family Studies and Human Development .....	2-6

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### Selectives

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#### 9-13 credits required

*The student will choose the appropriate number of selective courses from the approved lists with faculty advisement.*

# Food and Nutritional Sciences

## Introduction

**Master of Science Degree** The graduate program in food and nutritional sciences combines a strong content knowledge base with expertise to conduct applied research. The curriculum is partitioned into two concentrations that augment the research and class core. The concentrations are food science and technology, and human nutritional science.

The general goals of the food and nutritional sciences program are to develop students that:

- Have a comprehensive knowledge base regarding food science and nutrition topics and are able to apply this knowledge through the appropriate use of advanced communication technologies and strategies;
- Excel in the design, implementation, evaluation, and dissemination of food and nutrition research;
- Demonstrate creative, critical, and strategic thinking skills that can be applied to food and nutrition issues;
- Formulate a philosophical and ethical approach to their work;
- Competently compete for, attain, and succeed in positions in food science, food safety, food packaging, clinical and public health nutrition, nutrition and education.

## Admission

Admission requirements include a minimum GPA of 3.0, and if English is a second language, English proficiency that is demonstrated by either an IELTS score of 6.5 or TOEFL score of 79 (iBT) or 550 paper based. The prerequisites for admission to the Food Science and Technology concentration include chemistry, microbiology and organic chemistry. The prerequisites for admission to the Nutritional Sciences concentration include chemistry, physiology and anatomy, and organic chemistry. Applicants who are denied admission due to deficiencies in these prerequisites will be advised that the courses can be taken at UW-Stout as a special non-degree student but this will not guarantee admission into the graduate program.

The following courses are minimum competency courses. If the student has not completed an equivalent course, the student must take the following course(s) in addition to the required credits for the MS degree:

- FN 5XX Principles of Nutrition and Food Components
- CHEM-511 Biochemistry (CHEM-201 Organic Chemistry)

Additionally, for the Nutritional Sciences concentration, FN-520 Advanced Nutrition (*CHEM-511 Biochemistry*) must be taken.

Additionally, for the Food Science and Technology concentration, FN-625 Food Chemistry (*CHEM-201 Organic Chemistry*) must be taken.

## Primary Evaluation Processes

The primary processes used to evaluate program and academic progress include course grades, research evaluation, certification of program completion, and the following program specific processes: program application; degree candidacy; research topic approval; and intent to graduate.

## Requirements

The requirements for this degree include: (a) completion of at least 34 semester credits with an overall grade point average of 3.0 or better, and a minimum of 17 of those credits in courses open only to graduate students—700 and 800 level; (b) approval of degree candidacy at the appropriate time; and (c) completion of the research and professional requirements.

### Research Preparation

#### 11 credits minimum

PSYC-790	Applied Research Design .....	3
STAT-520	Statistical Methods .....	3

Choose one option:

#### Option 1

FN-728	Introduction to Foods and Nutritional Science Research .....	3
FN-729	research Proposal for Food and Nutritional Sciences .....	3

#### Option 2

FN-770	Thesis in Food Science and Nutrition ( <i>Plan A</i> ) or	
FN-735	Problems in Food Science and Nutrition ( <i>Plan B</i> ) .....	2-6
INMGT-700	Organizational Research Methods or	
EDUC-740	Research Foundations .....	3-4

### Professional Preparation Core Classes

#### 3 credits minimum

FN-701	Trends in Nutrition .....	2
FN-720	Workshop in Foods or	
FN-721	Workshop in Nutrition .....	1

Both workshops are repeatable for a total of 2 credits.

### Concentrations

#### 15 credits minimum

Choose from:

- **Food Science and Technology**
- **Human Nutritional Science**

Concentration courses may be selected from an approved list in consultation with the program director to meet individual needs of the student. See program director for concentration course selectives.

# Hospitality Strategy

## Introduction

**Master of Science Degree** Successful leadership of hospitality and tourism organizations requires understanding needs, wants and desires of customers in order to thrive in an ultra-competitive global economy. Students enrolled in the Hospitality Strategy Program focus on integrating hospitality data analytics and traditional management strategy to deliver contemporary hospitality experiences required by ever-changing consumers. Graduates possess the necessary skills that convert managerial understanding into strategic, consumer-focused leadership.

## Admission

For the emerging industry leader with industry experience, an undergraduate or graduate degree from an accredited institution of higher education is required along with a professional résumé (*no longer than two pages*) demonstrating relevant experience in consumer-facing decision-making roles; a TOEFL score as outlined by the Graduate School for international students; one professional letter of recommendation; a one-page professional, personal statement that presents the candidate's understanding of consumer strategy. If requirements for program admission are not met, a team of instructional faculty within the School of Hospitality Leadership will determine special admit status using an appropriate evaluative technique as determined by the faculty.

## Degree Requirements

Customized instruction curriculum will be delivered in eight-week online sessions. The modules contain 10 sequential courses (30 credits), allowing for completion in 18 months.

## Curriculum

### 30 credits

HT-703	Consumer Strategy.....	3
HT-705	Science of Consumer Engagement .....	3
HT-711	Pricing Strategies and Revenue Tactics .....	3
HT-713	Consumer Value Creation for Hospitality.....	3
HT-715	Hospitality Customer Value Analysis .....	3
HT-721	Quality Service and Experience Assurance.....	3
HT-723	Strategic Alignment of Hospitality Human Capital.....	3
HT-725	Innovation for Competitive Advantage .....	3
HT-731	Data Interpretation and Hospitality Forecasting.....	3
HT-733	Hospitality Strategic Assessment and Analysis.....	3



# Industrial and Applied Mathematics

## Introduction

**Professional Science Master's Degree** The Professional Science Master's degree in Industrial and Applied Mathematics is a career-oriented degree designed to meet the needs of working professionals and prepare individuals to demonstrate advanced knowledge of mathematics and statistical techniques for business and industry. Newly graduated mathematics majors are also welcome to apply.

Industrial and applied mathematics focus on topics, problems and questions in business environments and industry that require modeling, data analysis and computation skills. A successful industrial mathematician has strong analytical and problem-solving skills built upon a background in computing, mathematics, statistics and basic science. The curriculum will include a common core of 18 credits of coursework in advanced topics in mathematics, statistics, and, to an extent, computer science.

At program completion, graduates of the program will be able to:

- ▶ Demonstrate advanced knowledge in mathematics, statistics, and scientific computing.
- ▶ Apply advanced mathematics, statistics, and computer science skills to answer questions and solve problems in business and industry.
- ▶ Analyze data and create mathematical and statistical models to answer questions and solve problems in business and industry.
- ▶ Work as a member of an effective interdisciplinary team.
- ▶ Communicate clearly using writing and oral presentation skills in scientific and non-scientific environments.

## Admission

To be admitted with full status to the program, you must:

- ▶ Be interested in developing advanced technological solutions to industrial needs and problems
- ▶ Hold a bachelor's degree in mathematics  
or
- ▶ Hold a bachelor's degree in science, engineering or finance/economic with advanced mathematics coursework
- ▶ Have earned an undergraduate GPA of at least 3.0

## Required Application Materials

- ▶ Graduate School Application
- ▶ Transcripts

## Primary Evaluation Processes

The primary criteria used to evaluate program and academic progress include: course grades, project documentation, and final assessment of program elements in collaboration with industry supervisors of projects.

## Requirements

Requirements for the degree include a minimum of 35 semester hours of graduate credit. Students take an introductory course in industrial mathematics and a culminating team project course. Students build a foundation in advanced mathematics by completing core courses in mathematics and statistics. Students are able to graduate from the program in two years.

### Common Introductory Core

#### 18 credits required

MATH-7XX	Introduction to Industrial Mathematics .....	3
MATH-7XX	Discrete Algebraic Methods .....	3
STAT-640	Advanced Linear Modeling – Regression and Time Series Analysis .....	3
MATH-7XX	Methods in Applied Mathematics: Initial and Boundary Value Problems .....	3
MSCS-7XX	Scientific Computing .....	3
STAT-7XX	Multivariate Analysis .....	3

### Selectives

#### Choose at least 9 credits

MATH-580	Cryptography .....	3
CS-680	Computer Security .....	3
MSCS-7XX	Cryptanalysis .....	3
CS-7XX	Advanced Database Systems .....	3
CS-7XX	Data Mining .....	3
CS-7XX	Machine Learning .....	3
CS-545	Image Processing .....	3
CS-546	Simulation Modeling and Analysis .....	3

### Capstone

#### 6 credits

MSCS-7XX	Field Project in Industrial Mathematics I .....	3
MSCS-7XX	Field Project in Industrial Mathematics II .....	3

### Professional Component

#### Required Seminars

Business Ethics Seminar I (*non-credit mandatory workshop*)

Business Ethics Seminar II (*non-credit mandatory workshop*)

Budget, Planning and Analysis Seminar (*non-credit mandatory workshop*)

### Selectives

#### Choose at least 2 credits

Contact the program director for a current list of approved selectives.

# Information and Communication Technologies

## Introduction

**Master of Science Degree** The graduate program in Information and Communication Technologies is designed to meet the needs of individuals working in related occupations that presently have a baccalaureate degree in a related field. This graduate program is intended for individuals interested in a selected area of information and communication technologies. Information and communication technologies (ICTs) are technologies that are used to produce, store, process, disseminate and exchange information. The student will complete 15 credits in a professional core and a minimum of 15 credits in one of the four emphasis areas.

The degree will be delivered through a distance education format, primarily online with minimal on-campus requirements.

## Admission

To be admitted with full status to this program, the applicant must hold a bachelor's degree from an accredited college, have an overall grade point average of at least 2.75 and have the equivalent of two years of appropriate experience.

## Requirements

The curriculum requires 30 credits including 15 credits in the core curriculum and a minimum of 15 credits in an emphasis area. Fifteen credits must be graduate only (700 level). There is a required research component that students satisfy with course-embedded projects that lead to completion of a portfolio. These projects, as well as additional research, completed in the chosen emphasis area, will be included in the student's portfolio. The portfolio will allow the learner to demonstrate growth in both the broader core curriculum of the program as well the specific competencies of their emphasis area.

### Core Curriculum

#### 15 credits

ICT-700	Introduction to Information and Communication Technologies .....	2
ICT-701	Information and Communication Technologies in Organizations .....	3
ICT-732	Technology Futures.....	3
ICT-780	Information and Communication Portfolio .....	1
INMGT-700	Organizational Research Methods .....	3
ICT-710	Learning Technologies .....	3

### Emphasis Area

### Minimum of 15 credits

*Students will select an emphasis area from one of the following: information technology management, learning technology, technology coordinator, or visual communications technology. The courses within the emphasis area will be selected to meet the competencies within the emphasis area and need to be approved by the program director.*



# Manufacturing Engineering

## Introduction

**Master of Science Degree** The graduate program in manufacturing engineering has been designed in response to regional needs for a graduate program to provide educational incentives for recruitment and retention of engineers. The program will accommodate the work requirements of these full-time professionals, being presented entirely by distance delivery means to the student's location. Workshops offered through UW-Stout's Northwest Wisconsin Manufacturing Outreach Center (NWMOC) are incorporated into the degree program.

Objectives of the program are that graduates will know how:

1. To apply mathematical models to the analysis of practical engineering problems.
2. To apply appropriate production operations management principles to the design and operation of manufacturing processes and systems.
3. To develop expertise in the areas of project management, automation and control, system design and integration, or other advanced manufacturing engineering topics.
4. To synthesize the knowledge gained in the first three objectives in solution of practical engineering projects.

## Entrance Requirements

Admission requirements include a bachelor's degree in engineering, a minimum grade point average of 3.0, and, if English is a second language, a TOEFL score of 500 or higher. The GRE is not required. Applicants with undergraduate degrees in fields closely related to engineering and with appropriate engineering experience in manufacturing or with a grade point average below 3.0 may be admitted at the discretion of the program director.

## Progress Toward Degree

Students will enroll in a sequence of courses that are offered via distance delivery and face-to-face instruction. Benchmarks include satisfactory completion of coursework with a grade of "B" or better, field research project approval and completion of a field research project.

## Requirements

The program requires 30 hours of graduate credit, 15 of which must be graduate-only (700 level), with an overall grade point average of 3.0 or better. Fifteen credits are included in the core curriculum, three credits are taken from a list of selectives, and twelve credits are to be taken from two of the following depth areas:

- Manufacturing Competitiveness
- Engineering Materials and Processes
- Mechanical Design

## Core Curriculum

### 15 Credits

INMGT-610	Six Sigma Quality Improvement Methods.....	3
INMGT-625	Planned Experimentation for Quality Improvement.....	3
INMGT-700	Organizational Research Methods.....	3
MFGE-707	Field Problem Formulation .....	1
MFGE-735	Problems in Manufacturing Engineering (Plan B).....	3
RC-581	Occupational Safety/Loss Control .....	2

## Selectives

Select 3 credits from the following:

BUACT-730	Financial, Managerial, and Cost Analysis.....	3
INMGT-622	Quality Engineering.....	3
INMGT-765	Program Management .....	3
INMGT-705	Enterprise Resource Planning.....	3
RC-587	Human Factors Engineering.....	3
SUST-515	Sustainable Engineering.....	3
SUST-730	Sustainable Futures.....	3

## Depth Area Selectives

Students are required to take 12 credits from at least two depth areas:

### Manufacturing Competitiveness

INMGT-640	Lean Enterprise .....	3
INMGT-745	Advanced Manufacturing Simulation .....	3
MFGE-640	Manufacturing System Design and Simulation.....	3
MFGE-665	Reliability Engineering .....	3

### Engineering Materials and Processes

MFGE-753	Polymer Engineering .....	3
MFGE-771	Emerging Manufacturing Materials .....	3
MFGE-7XX	Variable Topics in Manufacturing Engineering.....	3

### Mechanical Design

MECH-723	Finite Element Methods and Projects.....	3
MECH-726	Advanced Mechanics of Materials.....	3
MECH-729	Product Development and Design .....	3

**Transfer Credit:** With program director approval and subject to Graduate School policies, up to 1/3 of the total credits may be transfer credits from an institution accredited to offer graduate degrees.

# Marriage and Family Therapy

## Introduction

**Master of Science Degree** Students develop specific competence in the following areas of marriage and family therapy (MFT) lifespan human development, family dynamics, research, MFT ethics and legalities; systemic and interactional theories; and cultural competence related to the practice of individual, couple, family and group therapy. It includes direct experience conducting admission to treatment, clinical assessment and diagnosis, treatment planning, case management, and therapeutic intervention.

This bulletin provides only a brief overview of the program. A more detailed description can be found online at [www.uwstout.edu/programs/msmft](http://www.uwstout.edu/programs/msmft).

This program prepares people for work in clinical settings such as mental health agencies, in-home therapy, day treatment, behavioral health (hospitals), schools and/or private practice. The program has a balance of classroom and field experience. Field experience occurs in clinic settings with live supervision. This is one of the longest running programs in the nation to be fully accredited by the Committee on Accreditation for Marriage and Family Therapy Education (COAMFTE). It meets state educational requirements for licensing (*especially Wisconsin and Minnesota*) and prepares students for the AMFTRB (*national*) MFT exam required for license.

## Admission

To be admitted with full status to this program, the applicant must hold a bachelor's degree from an accredited college and have an overall grade point average of at least 2.75. Applicants who have less than a 2.75 overall grade point average, but have relevant work or volunteer experience since receiving the bachelor's degree and who are otherwise judged qualified as indicated below, may qualify for admission with probationary status. This would require that they complete graduate courses within the first term of enrollment with a minimum grade point average of 3.0 in order to continue in the program.

It is recommended that the applicant have an undergraduate degree with major emphasis in one of the behavioral sciences or a closely related field. Applicants are advised to complete the admissions process no later than the program's annual priority deadline (*usually mid to late winter*) as published on the Graduate School website at [www.uwstout.edu/grad](http://www.uwstout.edu/grad). Later applicants may be considered on a space available basis. Both a Graduate School application form (obtainable from the Graduate School Office or website) and program application forms (*obtainable from the MFT program office or website at [www.uwstout.edu/programs/msmft](http://www.uwstout.edu/programs/msmft)*) are required. All required Graduate School admission documents (*application, fee, transcripts, and the like*) must be in the Graduate School office, and program admission documents must be in the MFT program office, prior to the priority deadline.

When the number of applicants exceeds the number that can be accommodated, students will be admitted on the basis of academic performance and other factors appropriate for consideration including:

1. Professional or volunteer work experience in a helping profession, i.e., counseling, social work, psychology, agency work, residential care, domestic violence, drug counseling, in-home therapy, clergy and education.

2. Letters of recommendation from educators, employers and / or consumers of services provided by the applicant. (*These forms available from the MFT program office or program website.*)
3. Ratings of the individual as determined by an on-campus screening interview, followed by a group process evaluation. Admitting a diverse class of students is a priority.

Once accepted into the program, students will be required to complete a low cost criminal background check that will not affect their admission status, but could limit the availability of practicum placements.

## Primary Evaluation Processes

The primary processes used to evaluate progress in the program include assessment of academic course performance as well as performance in the clinical practicum. All evaluations are based on the clinical competencies (*specified in the Introduction*) expected of an MFT in training. Grades are used to reflect a student's level of competence.

## Requirements

The requirements for this degree include: (a) completion of the 56-credit curriculum (*specified below*) or demonstrated competence in the 56-credit curriculum with completion of at least 30 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better; a minimum of 28 credits must be in courses open only to graduate students-700 level; and (b) approval for degree candidacy at the appropriate time.

## Professional Requirements

### 54 Credits

COUN-723	Psychopathology: Assessment and Treatment Planning .....	3
COUN-761	Counseling Children and Adolescents .....	3
HDFS-715	Theories of Family Processes .....	2
HDFS-742	Lifespan Family and Human Development .....	3
MFT-740	Cultural Competence in Family Therapy .....	3
MFT-745	Treating Drug Abuse, Intimate Violence, and Self Harm .....	3
MFT-765	Research in Psychotherapy .....	3
MFT-752	Couples and Sex Therapy .....	3
MFT-744	Psychometric Aids to Couples and Family Therapy.....	2
MFT-750	Foundations of Couples and Family Therapy .....	3
MFT-751	Contemporary Couples and Family Therapy .....	3
MFT-755	Professional Issues in Couples and Family Therapy.....	3
MFT-793	Couples and Family Therapy Practicum I .....	8
MFT-794	Couples and Family Therapy Practicum II .....	8
MFT-795	Couples and Family Therapy Practicum .....	3
XXX-XXX	Electives .....	1

# Operations and Supply Management

## Introduction

**Master of Science Degree** The objective of the program is to develop graduates who will assume leadership positions in operations and supply management to contribute to the competitiveness of firms operating in the domestic and global marketplaces.

The Operations and Supply Management program is designed to provide advanced knowledge and skills necessary to work in the operations management profession which includes producing and delivering goods and services, quality management, supply management, planning and scheduling, and inventory management.

Students will learn to efficiently manage an organization by mastering topics such as manufacturing process design, distribution, inventory management, capacity management and supply chain management.

Graduates of the Operations and Supply Management program will have the analytical and applied competencies that employers are increasingly demanding.

## Admission

To be admitted with full status to this program, the applicant must hold a bachelor's degree from an accredited college, have an overall grade point average of at least 2.75 and have the equivalent of two years of appropriate work or military experience. Applicants who have an overall grade point average below 2.75 may be considered for probationary admission if other requirements are met.

Prerequisite courses may be prescribed upon evaluation of undergraduate transcripts if the student does not have a strong background in production management, financial and cost accounting, engineering economy, statistics and a technical area.

## Primary Evaluation Processes

The primary mechanisms used to evaluate program and academic progress include course grades and research project evaluation.

## Requirements

The requirements for this degree include: (a) completion of at least 34 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better, a minimum of 15 credits in courses open only to graduate students — 700 level; (b) approval of degree candidacy at the appropriate time; and (c) a course distribution as outlined here:

### Required Core

#### 14 credits

BUACT-730	Financial and Cost Analysis .....	3
BUMGT-760	Strategic Planning and Deployment .....	2
INMGT-705	Enterprise Resource Planning.....	3
INMGT-710	Seminar in Operations Management .....	3
INMGT-765	Program Management .....	3

### Leadership

#### 6 credits

INMGT-616	People Process Culture.....	3
INMGT-750	Organizational Development.....	3

### Research

#### 5 credits

INMGT-700	Organizational Research Methods .....	3
INMGT-735	Problems in Operations and Supply Management .....	2

### Concentration

#### 9 credits

#### Supply Chain Management (*on-campus delivery only*)

BUSCM-538	Principles of Logistics.....	3
BUSCM-637	Procurement, Sourcing and Supply Chain Management .....	3
BUSCM-639	Seminar: Supply Chain Systems Design.....	3

#### Operations Management

INMGT-640	Lean Enterprise.....	3
INMGT-712	Operational Disruption Management .....	3
INMGT-718	Advanced Quality Management.....	3

#### Quality Management

INMGT-620	Quality Assurance Practicum .....	3
INMGT-718	Advanced Quality Management.....	3
INMGT-7XX	Six Sigma – Black Belt.....	3

#### Project Management

INMGT-640	Lean Enterprise.....	3
INMGT-675	Advanced Project Management.....	3
INMGT-712	Operational Disruption Management .....	3

# Risk Control

**Master of Science Degree** To remain competitive in today's global economy, organizations need to effectively protect their human, financial, legal, property and natural resources. UW-Stout strongly embraces this resource protection perspective with a M.S. degree in Risk Control that prepares individuals to serve as consultants in the areas of employee safety, facility and environmental protection. This masters degree program is nationally recognized by major corporations for developing a broad range of technical as well as managerial skills that align with the demands of a highly dynamic profession.

The Risk Control program is a comprehensive course of study is designed to meet both the personal and professional needs of the student by emphasizing a technical base in employee, legal, environmental and property protection; and a solid management perspective in those areas

The program stresses the means by which loss prevention as well as loss reduction-based activities are integrated into an organization's day-to-day practices. Individuals from business, industry, education and government-oriented backgrounds seek this program to assist with professional growth and/or a possible career change. Students in the program continuously integrate theory with realistic, practical problem solving experiences with local industries and thus hone their ability to work in a team-oriented professional setting. The M.S. in Risk Control program maintains a competency-based focus which stems from close collaboration with successful business leaders that work in the risk control/safety profession.

## Admission

To be admitted to this program with full status, the applicant must hold a bachelor's degree from an accredited college with an overall grade point average of at least 3.0. Applicants with an overall grade point average ranging from 2.5 to 3.0 may be considered for probationary admission. In addition, the applicant must have appropriate academic coursework in the areas of general safety, chemistry and organizational leadership. A deficiency in these prior coursework requirements does not preclude admission, but would still require completion of additional undergraduate work and/or increase the amount of graduate credit required to earn the degree. Professional, industrial/trade or educational experience is a definite plus for those who enroll in the program. An individual program of study will be designed to accommodate the requirements of the profession and the needs of the student. Final student selection and admission to the program will be accomplished by the program director and the faculty. The application deadline for fall semester admissions is February 1 while spring applications are due by October 1. Late applications may be considered after these dates only if openings exist for the coming term.

## Primary Evaluation Processes

The primary processes used to evaluate each applicant include his/her professional goals, related work experience, prior degree and the

grade point average of such academic work. Upon acceptance into the program, the faculty provides timely performance feedback on the students' ability to master the various technical as well as managerial concepts that are promoted in each of the core program courses.

## Requirements

The requirements for the M.S. Risk Control degree include (a) completion of at least 39 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better, (b) completing a minimum of 20 credits at the 700 level, and (c) and being approved for degree candidacy in relation to the following program-specific courses:

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### Management/Applied Research

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#### 14-17 credits required

RC-640	Environmental Leadership and Sustainability Management .....	3
RC-735	Field Problem in Risk Control .....	2-4
RC-781	Risk Management Applications .....	3
RC-782	Loss Control Systems.....	3

#### Select One:

INMGT-700	Organizational Research Methods.....	3
EDUC-740	Research Foundations.....	4

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### Risk Control/Safety/Property Protection

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#### 17 credits required

RC-583	Occupational Safety, Health and Environmental Standards .....	3
RC-586	Fire Protection .....	2
RC-587	Human Factors Engineering/Ergonomics .....	3
RC-589	Fleet Risk Control Management.....	3
RC-595	Emergency Preparedness and Response .....	3
RC-725	Process Hazard Management .....	3

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### Industrial Hygiene/Occupational Health

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#### 8 credits required

BIO-720	Toxicological Effects in Humans.....	3
CHEM-710	Industrial Hygiene Instrumentation .....	2
CHEM-742	Industrial Hygiene .....	3



# School Counseling

## Introduction

**Master of Science Degree** The program in school counseling provides a basic preparation in school counseling that leads to certification by the State of Wisconsin for employment in the public schools.

Students who seek certification from the Wisconsin Department of Public Instruction must meet both elementary and secondary requirements for certification as a school counselor on a PK-12 basis.

Learning experiences in the immediate professional setting include supervised counseling practicum and internship.

## Admission

To be admitted with full status to this program, the applicant must hold a bachelor's degree from an accredited college and have an overall grade point average of at least 2.75. Applicants may be admitted on probationary status if their overall grade point average is at least 2.5, but less than 2.75. These exceptions are subject to a strict limit of 10 percent of the students in the program and must be individually negotiated with the recommendation of the program director and the approval of the Graduate School.

Both the Graduate School Application form (*obtainable from the Graduate School*) and a Program Application form (*obtainable from the program director*) must be submitted by each applicant, including the documents identified on these two forms. Applicants must have presented and filed all required Graduate School documents to the Graduate School office by February 1 for summer and fall terms, and October 1 for the spring term. After committee review and a personal interview for selected applicants, notification of acceptance will be made by May 1 for summer and fall terms, and December 1 for the spring term. The process and deadlines for selecting applicants will be strictly followed in each case.

Students will be admitted on the basis of academic performance, admissibility to the Graduate School, recommendations and rankings of a screening committee. These rankings are based on: 1. Experience in a helping profession, i.e., counseling, education, social work, psychology and volunteer activities; 2. Letters of recommendation from employers, instructors and consumers of services provided by the applicant; 3. An autobiographical statement in which the applicant has outlined assets and liabilities as a potential counselor trainee; and 4. Academic performance and potential as demonstrated by performance in undergraduate coursework, and any additional graduate coursework. A personal interview with the program director and faculty is also required. The interview is scheduled with selected applicants following review of application materials.

## Requirements

The degree requires a minimum of 50 credit hours. Transfer credits may not exceed 12. An overall graduate grade point average of 3.0 or better is required, and a minimum grade of 2.75 is required for all core requirements. Students must also be approved for degree candidacy at the appropriate time and follow the approved program plan outlined here:

## Core Requirements

COUN-750	Counseling Theory.....	3
COUN-752	Group Dynamics.....	3
COUN-788	Counseling Process Laboratory.....	3
EDUC-740	Research Foundations .....	4
HDFS-742	Lifespan Family and Human Development .....	2-3
SCOUN-735	Problems in Counseling and Psychological Services (Plan B) or Thesis (Plan A).....	2-6
SCOUN-647	Emotional/Behavioral Problems of Children and Adolescents .....	3
SCOUN-733	Lifespan Career Development.....	3
SCOUN-765	Professional Orientation to School Counseling.....	3
SCOUN-782	PK-12 Developmental Guidance Curriculum .....	3
SCOUN-788	School Counseling Practicum.....	2-3
SCOUN-789	Elementary School Counseling Internship .....	3
SCOUN-790	Secondary School Counseling Internship.....	3
SCOUN-793	School Counseling Internship Seminar .....	2
SPSY-753	Psychometric Theory and Application.....	2
SPSY-753A	School Counseling Laboratory .....	1
SPSY-775	School Consultation .....	2
SPSY-777	Legal and Ethical Issues .....	2

## Selectives (2 credits; self-designed concentrations are encouraged)

SCOUN-705	Play Therapy .....	2
ANTH-620	Anthropological Study of Family Systems.....	3
PSYC-666	Alcoholism and Family Systems Intervention .....	2
SCOUN-690	Behavioral Interventions in the Schools.....	2
CTE-502	Principles of Career and Technical Education.....	2
EDUC-XXX	Approved seminar/current issues course .....	1-3
SPED-524	Curriculum and Instruction: Career and Transition Education .....	3
EDUC-615	Classroom Management .....	3
EDUC-750	Curriculum Theory and Practice.....	3
FCSE-708	Curriculum Studies .....	2
SCOUN-792	Postsecondary Practicum.....	2

**Note:** Depending on undergraduate degree major, some students are required to complete additional course work to meet minimum competency for certification. Minimum competency courses are Psychology of Learning; Inclusion; Multiculturalism; Preparation for Research; and Organization, Administration, Operation of Schools.

## Full Time or Part Time Study

Extended field placement (*internship*) required in this program consists of 600 hours in the school. Part-time study while holding a full-time job is very difficult unless the employment provides considerable flexibility. The internship may not be completed in the summer session because the time available is not extensive enough and regular school placements are not available. Therefore, full-time study for at least one semester is recommended. A substantial portion of the course work may be completed part time by attending summer sessions, attending during the regular semesters for late afternoon and evening classes, or enrolling in continuing education off-campus courses. However, a commitment for at least one semester full time, or two semesters half time, is required at the point where the student is ready for internship placement.

# School Psychology

## Introduction

**Master of Science in Education** The school psychology program provides students with specialized training in both psychology and education. School psychologists use their knowledge, training and skills to team with educators, parents and other mental health professionals. They work to maximize the learning of students and to promote the development of safe, healthy and enriching school environments.

The Master of Science in Education degree (*M.S.Ed.*) course work occupies the first year of study, and the Education Specialist degree in school psychology (*Ed.S.*) is completed after the second year of study and a third year of internship. Following successful completion of both degrees, students are eligible for full certification by the Wisconsin Department of Public Instruction and the corresponding agency in most other states. Additionally, after completing both degrees, students are eligible for national certification by the National Association of School Psychologists (*NASP*).

The *M.S.Ed.* degree in school psychology is a 30-credit degree program. Students complete course work in psychometrics, counseling, assessment, diagnosis and psychoeducational disabilities. After satisfactorily completing 30 credit hours and a thesis, students are awarded the degree.

## Degree Program Admission

To be admitted with full status to the program, the applicant must hold a bachelor's degree from an accredited college and have an overall undergraduate grade point average of 3.0 or better. A limited number of applicants may be admitted on probationary status if their overall grade point average is at least a 2.75.

Applicants should have an undergraduate degree with a major emphasis in one of the behavioral sciences or a closely related field. As part of the preparation for entry, a minimum of 15 credits in psychology and/or education are recommended. Course work necessary for sufficient preparation includes developmental psychology, abnormal psychology, personality, learning and statistics. An applicant with insufficient background may be required to take specific undergraduate courses in these areas in addition to those required within the graduate program.

The Graduate School Application form (*obtainable online or from the Graduate Office*), the Program Application form (*obtainable online or from the program director*), and their respective documents must be submitted by each applicant. Applicants must have presented and filed all required admission documents by January 15 prior to enrollment. After committee review, selected applicants will be invited for personal interviews. Following the committee's review, applicants will be notified of their status prior to April 15. If openings occur after this date, the program director and the committee may consider late applications.

Students will be admitted on the basis of academic performance, the recommendation of the Graduate School, and the rankings of the admission's committee. These rankings are based on:

1. Letters of recommendation from employers, faculty, and persons knowledgeable regarding the qualifications of the applicant.
2. The applicant's previous grade point average.
3. An interview in person (*or by telephone when restriction prohibits a personal interview*).
4. An autobiographical statement in which the applicant has outlined areas of interest, intent and professional goals.
5. A spontaneous writing sample completed by the applicant on the interview date.
6. Work or volunteer experience in the helping professions.

## Education Specialist Degree Admission

Admission to the *M.S. Ed.* program in school psychology does not ensure admission to the *Ed.S.* program. Admission to the *Ed.S.* program requires an application to the Graduate School and the *Ed.S.* program.

Applicants to the *Ed.S.* program must have maintained at least a 3.25 graduate grade point average, and attained a grade of "B" or better in the following courses: Counseling Process Laboratory, Learning Disabilities Laboratory, and Supervised Counseling Practicum. Further, an applicant must be considered a student in good standing, have demonstrated appropriate professional conduct as a graduate student, and have passed a background check conducted by the appropriate state or federal agency.

Practicing professionals who already possess a related master's degree may also wish to seek school psychology certification. Such individuals also must apply for admission to the *Ed.S.* degree in school psychology program.

## Primary Evaluation Processes

The primary process used to evaluate a student's performance is a regularly scheduled review by the program committee of a student's course grades, research activities, practicum evaluations, and professional ethical/legal conduct. Program faculty convene once a semester to evaluate each student's progress. Degree candidacy is awarded to students who are in good standing, have fulfilled all Graduate School requirements for degree candidacy, and have fulfilled all school psychology program requirements for degree candidacy.

## Requirements

The program outlined here includes all requirements for the M.S.Ed. degree in School Psychology. Completion of the M.S.Ed. degree will require a minimum of 30 credits and Plan B thesis. Credits earned toward the degree must meet a grade point average of 3.0 or better. A minimum of 15 credits must be at the 700 level. Application for degree candidacy must also be approved at the appropriate time.

All of the following courses are required for full certification as a school psychologist. The first 30 credits can be applied toward the M.S.Ed. degree.

## Degree Without Certification

Students who do not intend to work in the schools as a school psychologist but are interested in a related field (*where preparation emphasizing assessment, counseling, consultation, and disabilities is desirable*) may elect to complete the M.S.Ed. degree only.

## Provisional Certificate or Licensure

A provisional certificate or licensure will be awarded to a student who has completed a master's degree and all remaining course work (*except the Internship and Specialist Thesis requirements of the Ed.S. degree*) by the Department of Public Instruction in Wisconsin or a corresponding agency in most states.

## Core Professional Training

### 15 Credits

COUN-788	Counseling Process Laboratory .....	3
SPSP-743	Cognitive Assessment .....	3
SPSY-753B	Laboratory – School Psychology .....	1
SPSY-768	Learning Disabilities: Assessment and Intervention .....	3
SPSY-775	School Consultation .....	2
SPSY-778	Psychoeducational Disability .....	3

## Psychological Foundations

### 13 Credits

COUN-750	Counseling Theory .....	3
EDPSY-730	Advanced Psychology of Learning for Instruction .....	2
EDUC-740	Research Foundations .....	4
SPSY-735	Problems in School Psychology (Plan B) .....	2
SPSY-753	Psychometric Theory and Application .....	2

## Educational Foundations

### 2 Credits

SPSY-701	Roles and Functions of School Psychologists .....	2
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# School Psychology

## Introduction

**Education Specialist Degree** Approved by the National Association of School Psychologists (NASP), this program provides training in both psychology and education. School psychologists use their knowledge, training, and skills to team with educators, parents and other mental health professionals. They work to maximize the learning of students and to develop safe, healthy and enriching school environments.

The Education Specialist degree (Ed.S.) follows the completion of the Master of Science in Education degree (M.S. Ed.). After completing the Ed.S. degree, students are eligible for full certification by the Wisconsin Department of Public Instruction and the corresponding agency in most states. Students can become nationally certified (NCSP) by the National Association of School Psychologists by passing an exam.

The Ed.S. degree is a 46 to 49 credit degree program. After satisfactorily completing the required course work, practica, a yearlong (*nine month*) internship and a Specialist Thesis, students are awarded the degree.

## Degree Program Admission

To be admitted with full status, the applicant must hold a master's degree in school psychology or a master's degree in a related field. Applicants must have a graduate grade point average of 3.25 or better to be admitted as full-status students. A limited number of applicants may be admitted on probationary status if their overall graduate grade point average is at least a 3.0.

It is recommended that applicants have a master's degree in school psychology. Applicants with master's degrees in related fields will be required to take the additional graduate course work necessary for certification as a school psychologist.

Applicants must submit the Graduate School Application form (*obtainable from the Graduate Office in 208 Robert Swanson Learning Center*), the Program Application form (*obtainable online or from the program director*) and their respective documents, along with a portfolio to the selection committee demonstrating their professional competencies related to the field of school psychology.

Students seeking admission to the program should complete and submit their application materials at least 30 days prior to the opening of the term in which they plan to begin their program. After a committee review of the application materials, candidates will be notified of their status prior to the intended enrollment term.

## Primary Evaluation Processes

The primary process used to evaluate student performance is a regular review of the student's course grades, research activities, practicum evaluations, internship evaluations and professional conduct. Program faculty convene once a semester to evaluate each student's progress within the school psychology program. Degree candidacy is awarded to students who are in good standing, have fulfilled all Graduate School requirements for degree candidacy, have fulfilled all school psychology program requirements for degree candidacy and certification, have acquired 30-47 credits of course work in school psychology, have completed a nine-month internship, and have completed a Specialist Thesis. More information regarding the specific requirements is available in the program handbook (*available online or from the program director*).

## Requirements

Requirements for the Ed.S. degree include (a) completion of at least 46 semester hours of graduate credit beyond the master's degree with an overall grade point average of 3.25 or better; a minimum of 18 credits must be in courses open only to graduate students – 700 and 800 level; (b) approval for degree candidacy at the appropriate time; and (c) a course distribution which is outlined here.

The following courses are required for full certification as a school psychologist. Students must attain a grade of "B" or better on all credits applied to the Ed.S. degree.

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### Core Professional Training

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#### 19 Credits

SPSY-710	Psychoeducational Assessment of Young Children .....	2
SPSY-745	Social, Emotional and Behavioral Assessment of Youth .....	2
SPSY-781	Field Practicum in Psychoeducational Services I .....	3
SPSY-782	Field Practicum in Psychoeducational Services II .....	3
SPSY-777	Legal/Ethical Issues: School Counselors/Psychologists .....	2
SPSY-784	Clinical Practicum in Psychoeducational Services I .....	2
SPSY-785	Clinical Practicum in Psychoeducational Services II .....	2
SPSY-790	System-Level Prevention and Intervention .....	3

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### Psychological Foundations

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#### 8 Credits

EDPSY-850	Psychology of Development .....	3
SPSY-690	Behavioral Interventions in the Schools .....	2
SPSY-790	System Level Prevention and Intervention .....	3

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### Educational Foundations

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#### 3 Credits

EDUC-536	Multiculturalism .....	2
EDUC-576	Cross-Cultural Field Experience .....	1

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### Education Specialist Degree Requirements

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#### 12 Credits

SPSY-792	Internship in School Psychology .....	6
SPSY-870	Specialist Thesis or .....	
SPSY-895	Applied Research Project in School Psychology .....	6



# Sustainable Management

**Master of Science Degree** The online M.S. in Sustainable Management will attract primarily adult and nontraditional students who hold an undergraduate degree and have the desire to continue their education toward a graduate degree for the purpose of engaging in this developing, interdisciplinary field and increasing their professional prospects.

The interdisciplinary focus encourages students to examine sustainability from different perspectives. The curriculum will also ensure that students gain a comprehensive understanding of the ways in which changing human activities affect the inseparable natural, social, and economic environments.

The M.S. in Sustainable Management is an online 34-credit graduate program offered jointly by faculty from UW-Superior, UW-Stout, UW-Parkside, UW-Oshkosh, and UW-Green Bay. Each institution will supply up to 10 credits in areas of expertise.

A signature feature of the program is that students can work with their academic advisor to plan and formalize a unique capstone experience that could involve an internship/preceptorship and faculty-student research project.

Upon completion of the M.S. in Sustainable Management, graduates will be able to:

- Effectively communicate complex issues related to sustainability;
- Analyze the relationship between human activity and the natural, social, and economic environments;
- Apply performance metrics, utilizing natural and social capital to drive organizational decision-making;
- Understand and synthesize the role and impact of the built environment;
- Evaluate the social and political impact of sustainability in political systems and their obligations to future generations;
- Examine how organizational leaders develop and enable sustainable organizations; and
- Apply sustainable management principles to impact the design of products, processes, energy production and use, waste minimization, and pollution prevention.

## Admission

Students will apply to one of the five partner institutions. Admission requirements include an application, a 500-word statement of intent, two letters of recommendation and a resumé. Upon admittance, that institution will become the student's administrative home for the degree.

## Requirements

The requirements for the M.S. in Sustainable Management degree include (a) completion of at least 34 semester hours of graduate credit with an overall graduate grade point average of 3.0 or better (b) 24 credits from core, 6 credits of a specialty track, and 4 credits of a capstone course sequence (c) a course distribution as outlined here:

### Core Curriculum

#### 24 credits required

SMGT-700	Cultural and Historical Foundations of Sustainability .....	3
SMGT-710	The Natural Environment .....	3
SMGT-720	Applied Research and the Triple Bottom Line .....	3
SMGT-730	Policy, Law, and the Ethics of Sustainability .....	3
SMGT-740	Economics of Sustainability .....	3
SMGT-750	The Built Environment .....	3
SMGT-760	Geopolitical Systems: Decision Making for Sustainability on the Local, State, and National Levels .....	3
SMGT-770	Leading Sustainable Organizations .....	3

### Specialty Electives

#### 6 credits required

Choose two of the following four courses:

SMGT-780	Corporate Social Responsibility .....	3
SMGT-782	Supply Chain Management .....	3
SMGT-784	Sustainable Water Management .....	3
SMGT-785	Waste Management and Resource Recovery .....	3

### Capstone Experience

#### 4 credits required

SMGT-790	Capstone Preparation Course .....	1
SMGT-792	Capstone Project .....	3

# Technical and Professional Communication

## Introduction

**Master of Science Degree** The graduate program in Technical and Professional Communication (MSTPC) is a 30-credit, online degree program designed for working professionals. The program attracts students who wish to work as technical communicators in industry, manage document production groups, or those intending to professionalize their communication skills to be more competitive in the job market.

**Flexibility.** This program can be completed around your schedule, whether you need to enroll part-time or full-time.

**Quality Instruction.** Program faculty have experience teaching in online environments, and the program is evaluated yearly to help ensure that students receive quality instruction.

**Variety.** The program offers a wide variety of courses including rhetorical theory, usability and user-centered design, communication strategies for emerging media, visual rhetoric, project management, and international technical communication.

## Admission

To apply for the program, candidates need to apply to the UW-Stout Graduate School. To complete this application, e-mail a Statement of Goals to the program director (*see website*). This three-page statement should address the candidate's academic history, employment history and professional goals. The Statement of Goals will be used during the admission selection process and, if admitted, during the student's academic advising process.

To gain full admission to the program, the program selection committee requires that the applicant must hold a baccalaureate degree with an overall GPA of at least 2.75 GPA. The committee favors those students with academic and workplace experience writing and designing documents and those with keen interests in professionalizing their communication practices and project management skills.

## Requirements

The requirements for this degree include (a) minimum of at least 30 semester hours of graduate credit with an overall grade point average of 3.0 or better, with a minimum of 15 credits at 700-level or above; (b) approval for degree candidacy at the appropriate time; (c) program requirements must be completed in seven years or less; and (d) course distribution as follows:

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### Core Courses

#### 12 credits

ENGL-700	Theory and Research in Technical Communication .....	3
ENGL-720	Rhetorical Theory .....	3
ENGL-730	User-Generated Research for Technical Communication .....	3
ENGL-740	Visual Rhetoric for Technical and Professional Communicators.....	3

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### Selected Studies

#### 15 credits

Choose 15 credits from the following:

ENGL-512	International Technical Communication .....	3
ENGL-725	Advanced Usability .....	3
ENGL-615	Technical Writing .....	3
ENGL-635	Writing Technical Manuals .....	3
ENGL-637	Technical Writing Practicum .....	1-3
ENGL-712	Communicating in Multilingual Environments .....	3
ENGL-737	Technical and Professional Communication Portfolio Preparation .....	3
ENGL-745	Communication Strategies for Emerging Media .....	3
ENGL-750	Special Topics in Technical and Professional Communication ....	3
INMGT-565	Project Management .....	3
INMGT-675	Advanced Project Management .....	3
SPCOM-508	Speech Skills for Business and Industry .....	3
SPCOM-710	Advanced Interpersonal Communication for Professionals .....	3

*\*Up to 9 credits of approved graduate transfer coursework may be applied\**

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### Independent Research

#### 3-6 credits

ENGL-735	Field Project in Technical and Professional Communication or	
ENGL-770	Technical and Professional Communication Thesis .....	3-6

# Training and Human Resource Development

## Introduction

**Master of Science Degree** The Master of Science in Training and Human Resource Development program is designed to prepare professionals who seek to research, implement, and manage the learning and development programs and services within a variety of organizational contexts. This degree builds upon the student's interest and experience in developing the employee and the organization through training and learning opportunities.

Courses in this program use theoretical and practical combinations of activities related to training and human resources development. Group and team projects allow students to explore creative solutions and critical thinking. Students are offered many opportunities to develop corporate level presentation and writing skills.

Graduates of the program will be able to:

- ▶ **Lead the Learning Function** Serve as a strategic partner with senior leadership, develop and manage human capital, manage and implement learning projects, and evaluate technology to enhance the learning function
- ▶ **Improve Human Performance in an Organizational Context** Draw on business acumen, analyze needs, propose solutions, design learning, deliver training, and measure or evaluate effectiveness
- ▶ **Facilitate Organizational Change** Facilitate strategic planning for change, build trust, influence stakeholders, leverage diversity, and develop strategies and approaches to managing culture change
- ▶ **Manage Organizational Knowledge** Serve as a catalyst for knowledge sharing, understand business technology and how it enables and encourages organizational learning

## Admission

To be admitted with full status to the program, applicants must hold a bachelor's degree from an accredited college and have an overall grade point average of at least 3.0 with appropriate work and/or military experience which aligns with the training and human resource development profession.

Applicants may be admitted on probationary status if their overall grade point average is less than 3.0 and have met other requirements. Prerequisite courses may be prescribed upon evaluation of undergraduate transcripts if the applicant does not have a strong background in training and human resource development.

## Entrance Requirements:

1. A completed bachelor's degree in a technical or business field or a field related to training and development.
2. Introductory courses in training and development and organizational leadership (*e.g.* TRHRD-360/560 *Training Systems in Business and Industry* and INMGT-400/600 *Organizational Leadership*) or equivalent work experience.
3. An introductory course in computer applications or equivalent computer experience.

4. Able to meet all requirements of the UW-Stout Graduate School.

A deficiency in these admission requirements may require completion of additional undergraduate courses, and/or an increase in the number of graduate credits required to earn the degree.

## Primary Evaluation Processes

Processes used to evaluate program and academic progress include course grades, research evaluation, certification of program completion, and the following specific processes: applicant's goals; related work experience; program plan; student advisement; degree candidacy; and intent to graduate.

## Requirements

Requirements for the degree include: (a) completion of at least 30 semester hours of approved graduate credits with an overall grade point average of 3.0 or better; a minimum of 15 credits must be in 700-level courses open only to graduate students; (b) approval for degree candidacy at the appropriate time; and (c) a course distribution as follows:

### Required Research Preparation

#### 6 credits

INMGT-700	Organizational Research Methods	3
TRHRD-735	Field Problem: Training and Human Resource Development	3

### Required Professional Core Courses

#### 24 credits

ICT-710	Learning Technologies	3
INMGT-616	People Process Culture	3
INMGT-715	Organizational Consulting	3
INMGT-750	Organization Development	3
TRHRD-746	Seminar in Training and Human Resource Development	1
TRHRD-730	Systematic Training Design and Development	3
TRHRD-731	Systematic Training Measurement and Evaluation	3
TRHRD-740	Leading the Learning Function	3
PSYC-765	Psychology of the Adult Learner	2

### Professional Selectives

#### 5 credits – optional

CTE-534	Performance Analysis	3
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## Degree Program Supervision

Before completing 9 credits, students will prepare a program plan in keeping with degree requirements and the student's special needs. At that time, the program director will suggest courses that will help the student meet employment goals.

# Vocational Rehabilitation

## Introduction

**Master of Science Degree** The Vocational Rehabilitation program is founded on the assumption of the worth, dignity and value of all individuals. Accredited by the Council on Rehabilitation Education (CORE), the program is guided by its mission to prepare rehabilitation professionals committed to facilitating the personal, social and economic independence of individuals with disabilities throughout the rehabilitation or habilitation process. The program emphasizes vocational issues as the primary strategy to empower individuals with disabilities to make informed decisions as a means to improved life quality and life satisfaction.

Professional development activities and personal growth experiences for students are provided to focus on developing skills for living and working as constructive participants in our multicultural, multiethnic society. The Vocational Rehabilitation program works toward these ends by fostering lifelong learning skills, creating a climate of inquiry, encouraging creative and scholarly productivity, and enhancing people's ability to solve problems.

The program currently offers two concentration options: a CORE-accredited concentration in Rehabilitation Counseling and a dual concentration in Vocational Evaluation and Rehabilitation Counseling. Upon successful completion of the program all students will:

1. Develop and demonstrate an identity as a rehabilitation professional
2. Integrate rehabilitation philosophy and principles of independence, integration, choice, self-determination, empowerment, access and respect for individual differences into rehabilitation planning and service provision
3. Promote the inclusion of persons with disabilities in employment and/or the community
4. Demonstrate ethical behavior and ethical problem-solving consistent with the code of ethics for rehabilitation professionals
5. Understand disability-related legislation, public policy, and attitudinal and access barriers affecting persons with disabilities and their families
6. Understand the influences and implications of chronic illness and/or disability across human development and lifespan
7. Identify the functional impacts of chronic illness and/or disability
8. Evaluate environmental, social and economic influences that create barriers for persons with disabilities
9. Examine psychosocial, cultural and diversity issues that may affect the rehabilitation process
10. Establish positive productive relationships
11. Communicate effectively with persons with disabilities, families, and other rehabilitation professionals
12. Select and apply counseling techniques to promote informed vocational decision-making and adjustment to chronic illness or disability

13. Conduct and integrate vocational assessment into rehabilitation planning
14. Analyze jobs, employment trends and career opportunities to assist in rehabilitation planning and service provision
15. Identify community resources and other services which promote independence
16. Plan and coordinate effective rehabilitation services designed to help persons with disabilities reach their vocational potential
17. Apply research findings to improve services to persons with disabilities

In addition to these objectives, students enrolled in the dual Vocational Evaluation and Rehabilitation Counseling concentration will:

18. Understand the vocational evaluation process and the role of vocational evaluators in assisting persons with disabilities reach their vocational potential
19. Use work-related activities (*real or simulated work*) and principles of behavior observation to facilitate client vocational decision making
20. Acquire practical experience in vocational evaluation through practicum and internships in approved sites

The CORE-accredited Rehabilitation Counseling concentration is a 48-credit program offered to students enrolled in the campus or online cohort. The dual concentration in Vocational Evaluation and Rehabilitation Counseling is a 50-credit program. When pre-approved by the program director, a maximum of three credits may be obtained through credit-by-exam (CBE) due to completion of equivalent graduate or undergraduate work with a minimum grade of "B" or better.

All degree-related courses are predefined to meet accreditation standards and certification requirements. There are no required elective classes in the Rehabilitation Counseling or dual concentration. Students have the option of pursuing a 60-credit program by adding 12 elective credits in a specified emphasis area (*contact program director for details*).

Each concentration area prepares students to meet and/or exceed the educational and experiential requirements necessary to seek future professional designations as a Certified Rehabilitation Counselor (CRC) or Professional Vocational Evaluator (PVE). Students in the dual concentration meet the requirements for both the CRC and PVE credentials. Students in the Rehabilitation Counseling and dual concentration meet the minimum educational requirements necessary to obtain the Wisconsin state in-training license leading to the Wisconsin Licensed Professional Counselor (LPC) designation.

## Admission

The Vocational Rehabilitation program is based on a cohort-model where students are admitted to the program once yearly in the fall. The program offers two distinct program cohorts: a) traditional campus-based cohort designed as a two-year full-time program and; b) a part-time (*three-year*) online cohort designed for employed rehabilitation professionals who possess a minimum of two years of related work experience. Students within a cohort typically proceed through sequenced coursework together and graduate at the same time. The cohorts are mutually exclusive and students may enroll only in those courses within their designated cohort (*i.e., campus-based students may not enroll in online cohort course offerings*).

Application due dates are March 15 for the campus-based cohort and April 15 for the online cohort. To be considered for admission to the program, students must complete a two-step application process. First, submit the application for admission to the UW-Stout Graduate School ([www.uwstout.edu/grad/apply.cfm](http://www.uwstout.edu/grad/apply.cfm)). Second, submit the Vocational Rehabilitation program-specific application ([www.uwstout.edu/programs/msvr/](http://www.uwstout.edu/programs/msvr/)).

The Master of Science in Vocational Rehabilitation has unique professional degree requirements governed by professional accreditation standards. The program admission, retention, probation and dismissal policy reflects sensitivity to these standards and faculty determination of the graduate student or degree candidate's capability to meet the rigors of professional practice and the essential job functions of rehabilitation professionals. In recognition of responsibilities to people with disabilities who will be served by the graduates of this program, selective admission and retention of candidates for the Master of Science degree in Vocational Rehabilitation are maintained.

Entrance into the program requires the unanimous vote of approval by the graduate Vocational Rehabilitation Program Admission Committee which is comprised of a minimum of three rehabilitation faculty/staff members. Approval will be dependent upon the applicant demonstrating:

1. Potential for successful academic achievement at the graduate level;
2. Interest in working with people with disabilities;
3. Personal and social characteristics necessary to work with people with disabilities, such as personal, emotional and social maturity and a combination of patience, empathy and understanding;
4. Ability to work independently;
5. Ability to use expressive and receptive communication skills to effectively facilitate the counseling process;
6. Ability to perform the essential functions of the job of a rehabilitation counselor and/or vocational evaluator; and;
7. Ability to carry out professional responsibilities.

The decision for admission or denial of admission by the Vocational Rehabilitation Program Admission Committee will be based on the criteria above with information obtained from records of undergraduate and/or other graduate academic attainment, letters of reference from a minimum of three objective individuals who are familiar with the applicant in work or educational settings, information provided

on the program application form, and other data and information received by the committee. The committee may require an interview when information submitted is insufficient for rendering a decision or when the applicant's undergraduate GPA is less than 2.75.

To be admitted with full status to the Vocational Rehabilitation graduate program, the applicant must hold a bachelor's degree from an accredited college and have an overall grade point average of at least 2.75 based on a four-point scale. Applicants may be admitted on probationary status if their overall grade point average is at least 2.5 but less than 2.75. Other conditions of acceptance into the program may include completion of remedial course work. Remedial course work may be required and costs of such courses may differ from regular graduate tuition.

Students from a variety of educational backgrounds are eligible for admission. Applicants with degrees such as vocational rehabilitation, disability studies, psychology, sociology, business, industrial technology, vocational education, special education, occupational therapy, physical therapy, communication disorders, recreational therapy and social work can find appropriate applications within the program. Although a specific educational background is not required, the applicant's transcripts will be evaluated to determine if remedial or deficiency course work at the undergraduate level or additional graduate work will need to be completed to earn the degree. Additional course work requirements may differ among the various concentrations.

## Primary Evaluation Processes

Student retention in the Vocational Rehabilitation graduate program involves continuous formal and informal assessment of students throughout their training. Scheduled formal student assessment occurs at three specific points in the program: (a) mid-point faculty review, (b) application for degree candidacy, and (c) upon successful completion of comprehensive exam or completion of research project (*two-credit Problems in VR or six-credit Thesis*). Descriptions of the committee procedures for formal student assessment processes are detailed in the M.S. Vocational Rehabilitation Student Handbook available from the program director.



## Degree Requirements

The requirements for this degree include (a) completion of a minimum of 48 semester hours of predefined graduate credit; (b) an overall grade point average of 3.00 or better; (c) at least half (50%) of credits must be open only to graduate students numbered at or above the 700 level; (d) course distribution as outlined for specified concentration area; (e) a minimum grade of "B" or better in required concentration courses including all practicum and internship courses; (f) satisfactory (3.00) ratings on mid-point faculty review; (g) approval for degree candidacy and; (h) successful completion of the M.S. Vocational Rehabilitation comprehensive exam or thesis option (*thesis credits as outlined on individualized program plan*).

### Preparation in Research

#### 3-10 credits

EDUC-742	Program Evaluation or	
MFT-765	Research in Psychotherapy or	
EDUC-740	Research Foundations or	
REHAB-715	Research in Rehabilitation and Counseling	3-4
Choose one of the following options:		
EDUC-740	Research Foundations	4
REHAB-735	Problems in Vocational Rehabilitation (Plan B)	2
	or	
REHAB-770	Thesis in Vocational Rehabilitation (Plan A)	6
	or	

Comprehensive Exam: A student may choose to take a culminating comprehensive examination in lieu of completing a Plan B Problem or a Plan A Thesis.

### Preparation Basic to Program

#### 15 credits

REHAB-701	Foundations of Rehabilitation	3
REHAB-713	Aspects of Disability: Physical Disabilities	3
REHAB-714	Aspects of Disability: Cognitive Disabilities	3
REHAB-717	Occupational Analysis and Job Placement	3
REHAB-764	Case Coordination	3

### Concentrations

#### Vocational Evaluation 30 credits

REHAB-620	Psychological Testing Individuals with Disabilities	3
COUN-750	Theories of Counseling	3
REHAB-723	Procedures of Vocational Evaluation	3
REHAB-724	Applied Vocational Assessment	3
REHAB-707	Practicum in Vocational Evaluation	4
COUN-788	Counseling Process Lab	3
REHAB-783	Internship in Vocational Evaluation	5
XXX-XXX	Approved Electives	6

#### Rehabilitation Counseling 30-32 credits

REHAB-620	Psychological Testing Individuals with Disabilities	3
REHAB-723	Procedures of Vocational Evaluation	3
COUN-750	Theories of Counseling	3
COUN-788	Counseling Process Lab or	
REHAB-704	Pre-Practicum in Rehabilitation	3
REHAB-708	Practicum in Rehabilitation Counseling	3-5
REHAB-787	Internship in Rehabilitation Counseling	10
REHAB-724	Applied Vocational Assessment	2
COUN-752	Group Dynamics or	
REHAB-752	Group Work in Rehabilitation	3

#### Vocational Evaluation and Rehabilitation Counseling 32 credits

REHAB-620	Psychological Testing Individuals with Disabilities	3
COUN-750	Theories of Counseling	3
REHAB-723	Procedures of Vocational Evaluation	3
REHAB-724	Applied Vocational Assessment	3
REHAB-707	Practicum in Vocational Evaluation	4
COUN-788	Counseling Process Lab	3
COUN-752	Group Dynamics or	
REHAB-752	Group Work in Rehabilitation	3
REHAB-787	Internship in Rehabilitation Counseling	5
REHAB-783	Internship in Vocational Evaluation	5

### Other Requirements and Program Policies

#### 1. Degree Concentration Selection

Students applying to the campus learning cohort in the M.S. in Vocational Rehabilitation (MSVR) select an initial concentration in either rehabilitation counseling or the dual concentration in vocational evaluation and rehabilitation counseling. Once admitted to the program, with input and pre-approval from the program director, campus-based students may change their concentration on or before the end of their first academic year (end of spring semester). The MSVR online learning cohort offers only one concentration in rehabilitation counseling.

#### 2. Program Policy for Waived Credits

A maximum of six credits can be waived by the program director due to completion of equivalent graduate work with a grade of "B" or better.

#### 3. Program Policy for Electives

Elective course work must contribute to the objectives of the program and needs of its students.

### Sixty-Credit Program

With the advice and approval of the program director, students wishing to complete a 60-credit M.S. in Vocational Rehabilitation will identify appropriate coursework that develops an emphasis that meets the students' goals.

# Graduate Specializations

## Introduction

Specializations are programs of study, with carefully constructed learning goals and experiences, and evaluation procedures. While course work may be included in a specialization, students may also work to meet learning goals through internships, working with a mentor, successfully completing a proficiency examination or certification examination, or other non-classroom experiences. Courses may come from several departments and involve faculty from several disciplines.

Courses taken to complete a specialization may also fit elsewhere in a student's program of study.

Students who complete a specialization will have the specialization recorded on their transcript and will receive a certificate of completion.

UW-Stout offers the following specializations:

- ▶ Gerontology
- ▶ Health Science Occupations Education
- ▶ Training and Human Resource Development
- ▶ Vocational Evaluation/Rehabilitation Technology



## Gerontology Certification

The populations of the United States and the world are growing older, precipitating important changes in health and social policies. At present, one in eight Americans are 65 or older. These growing numbers will increase demand for individuals with gerontological skills and knowledge. The Gerontology Certification requires 20 credits, or

equivalent, and includes a required core and practicum through which students study aging as an interactive process of physical, social and psychological forces. Two credits of field experience with aging-related content will be required in the student’s own major area of study.

## Requirements for the Specialization

Intended Outcome	Learning Activity	Evaluation
The following outcomes will be achieved through required courses:		
1. Identify major biological theories of aging.	BIO-125 Biology of Aging..... 3	Exam, papers, reports 2.0 grade point average
2. Identify and describe the biological changes associated with aging.		
3. Recognize normal and pathological changes that occur in organ systems with age.	HDFL-340/540 Human Development: Aging Person ..... 3 BIO-125 Biology of Aging.....3	Exam, papers, reports 2.0 grade point average
4. Comprehend the social, political and economic aspects of aging.	HDFL-340/540 Human Development: Aging Person ..... 3	Exam, papers, reports 2.0 grade point average
5. Recognize and discard stereotypes associated with aging.		
6. Work in direct or indirect service to the older population.	Field Experience	Evaluation of field experience
The following outcomes may be achieved through the student’s selection of elective courses:		
7. Understand lifespan concept of development and demonstrate an integrated knowledge of the aging individual within the context of family.	HDFL-255 Lifespan Human Development ..... 3	Exam, papers, reports 2.0 grade point average
8. Understand the reciprocal nature of family caregiving.	HDFL-341/541 Family Caregiving to Dependent Elders .....1	Exam, papers, reports 2.0 grade point average
9. Understand the process of grief for older adults.	HDFL-425/625 Death Education and Counseling in Families .....2	Exam, papers, reports 2.0 grade point average
10. Recognize personal and cultural attitudes toward death.	HDFL-351 Death and the Family..... 1	Exam, papers, reports 2.0 grade point average
11. Identify and understand the ethical issues related to health care for the elderly.	HDFL-345/545 Health Care Dilemmas and Decisions for Families .....2	Exam, papers, reports 2.0 grade point average
12. Demonstrate ability to plan and develop nutritious meals and programs for older individuals which take into account physical and financial limitations.	FN-405/605 Nutrition for the Aged ..... 2	Exam, papers, reports 2.0 grade point average
13. Assist aging individuals, especially those with physical limitations, to find suitable and aesthetically pleasing clothing. Understand the product needs of older consumers and the promotional strategies used to market to this population.	BURL-335/535 Topics: Minorities and Aging Consumers ..... 2	Exam, papers, reports 2.0 grade point average
14. Understand counseling approaches and techniques for working with aging families in order to construct models for counseling older individuals and their families.	COUN-494/694 Counseling the Older Person ..... 2-3	Exam, papers, reports 2.0 grade point average
15. Assist older individuals and their families with financial planning.	HT-488 Financial Planning for Retirement ..... 2	Exam, papers, reports 2.0 grade point average
16. Identify the effects of exercise upon an older individual.	HLTH-365 Physiology of Exercise ..... 3	Exam, papers, reports 2.0 grade point average
17. Explain the psychological and physiological dimensions and impact of disability from a developmental perspective.	BIO-220 Physiology of Disabilities..... 3 REHAB-230 Psychosocial Aspects of Disability ..... 3 REHAB-682 Sexuality and Disability..... 2	Exam, papers, reports 2.0 grade point average
18. Identify needs and difficulties unique to older disabled workers.	REHAB-355/555 Rehabilitation of the Older Disabled Worker ..... 2	Exam, papers, reports 2.0 grade point average
19. Identify formal support systems available to older persons with special needs or national, state and local needs.	REHAB-458/658 Rehabilitation Support System Networking .....2	Exam, papers, reports 2.0 grade point average
20. Explain various understandings of the meaning of aging as portrayed in literature.	LIT-450 Aging in Literature ..... 3	Exam, papers, reports 2.0 grade point average
21. Identify architectural barriers confronted by the disabled traveler.	HT-360/560 Hospitality and the Handicapped Traveler ..... 1	Exam, papers, reports 2.0 grade point average
22. Understand the range of technological options available to assist frail and/or disabled elderly.	REHAB-360/560 Assistive Technology..... 2	Exam, papers, reports 2.0 grade point average
23. Identify and describe absorption and metabolism of medications in the elderly.	BIO-358 Introduction to Pharmacology..... 2	Exam, papers, reports 2.0 grade point average





Health Science Occupations Education

This specialization is intended for licensed secondary teachers who are teaching or interested in teaching health science occupation (HSO) related coursework. Individual school districts determine the licensure needed by an individual teaching HSO related coursework. Comple-

tion of the specialization does not result in Wisconsin Department of Public Instruction certification. Courses are offered online. The field experience will take place in a health care facility.

Requirements for the Specialization

12 credits required

Intended Outcome	Learning Activity	Evaluation
Demonstrate knowledge, understanding, and competence in the following:		
1. The demands and responsibilities of working in a health care facility	CTE-398/598 Field Experience .....1-2 CTE-310/510 Foundations of Health Science Occupations Education ..... 3	Successful completion of courses is required. Artifacts for the professional portfolio are identified on course outlines.
2. National Health Care Skill Standards	CTE-310/510 Foundations of Health Science Occupations Education ..... 3 CTE-320/520 Careers in Health Care..... 3	Successful completion of courses is required. Artifacts for the professional portfolio are identified on course outlines.
3. Curriculum planning in health science occupations	CTE-330/530 Curriculum Planning in Health Science Occupations..... 3	Successful completion of course is required. Artifacts for the professional portfolio are identified on course outline.
4. Organizational structure and administration of health care and role of health care professionals	CTE-310/510 Foundations of Health Science Occupations Education ..... 3	Successful completion of course is required. Artifacts for the professional portfolio are identified on course outline.
5. Student career development	CTE-320/520 Careers in Health Care..... 3	Successful completion of course is required. Artifacts for the professional portfolio are identified on course outline.
6. Organization and supervision of work-based learning	CTE-360/560 Cooperative Occupational Education Programs..... 2	Successful completion of course is required. Artifacts for the professional portfolio are identified on course outline.



## Training and Human Resource Development

Education is not the sole province of schools. Programs of instruction are conducted by many businesses, industries, in the military, and by other groups and organizations. Planning and providing this instruction is the province of professionals usually identified as “trainers.” In our technological society, training programs have become increasingly complex and demands on trainers have increased. Greater expertise on their part is required. This all-university specialization addresses

needs for preservice and in-service education for trainers.

This program is intended for students who have expertise in areas such as engineering, technology, education, business, government, military and labor, and who desire to become involved in development and implementation of training programs. Contact the specialization director for further information.

## Requirements for the Specialization

**Note:** Courses numbered 700 and greater are open to graduate students only.

Intended Outcome	Learning Activity	Evaluation
1. Introduction to concepts of training and human resource development.	TRHRD-360/560 Training Systems in Business and Industry..... 3 Select one of the following: INMG-400/600 Organizational Leadership or PSYC-382/582 Human Resource Management ..... 3	Successful completion of courses at left (6 credits).
2. Design and develop training activities.	MEDIA-360/560 Introduction to Media in Education and Training..... 2 Complete a course from the appropriate school in curriculum development or course construction (2-3 credits) such as: MEBE-401 Marketing Education Curriculum ..... 2-3 CTE-438/638 Course Construction for Vocational Educators..... 2	Successful completion of courses at left (minimum 4 credits).
3. Implement and facilitate training activities.	Select one of the following: MEBE-301 Marketing Education Methods ..... 3-4 TRHRD-370/570 Training Methods in Business and Industry ..... 2 CTE-405/605 Methods of Teaching Vocational Education ..... 2	Successful completion of a course at left (minimum 2 credits).
4. Evaluate the effectiveness of training activities.	CTE-440/640 Instructional Evaluation in Vocational Education ..... 2	Successful completion of the course at left (2 credits).
5. Apply concepts of training in the professional area.	TRHRD-XXX Co-op/Internship in Training.....1-8	Successful completion of the contractual agreement of the internship as evaluated by the business, industry, government or military supervisor, and the UW-Stout supervisor. Completion of a field report is required.

## Vocational Evaluation/Rehabilitation Technology

The impact of technology has changed assessment and service delivery in the field of rehabilitation. A philosophical shift to a more empowering stance with persons with disabilities has occurred as a result of the evaluation of their skills and abilities and the enhancement of those skills through assistive technology. This specialization educates and

trains vocational rehabilitation professionals and students in skills to meet the needs of people with disabilities, and to provide the services that are being demanded by employers, as well as persons with disabilities for use in the labor market and in accordance with the Americans with Disabilities Act.

## Requirements for the Specialization

Intended Outcome	Learning Activity	Evaluation
<b>Development of tool modification and accommodation:</b> demonstrate familiarity with and use of testing accommodations or modifications to facilitate the vocational exploration of persons with disabilities through the modification of tests, work samples, job sites and training materials, as appropriate.	<p>"The Use of Assistive Technology" workshop, resulting in a report detailing the use and modification of testing strategies <i>or</i></p> <p>REHAB-360/560 Assistive Technology..... 2</p>	<p>Faculty review and approval of report on use and modification of evaluation tools <i>or</i></p> <p>Grade of "C" or better</p>
<b>Communication of rehabilitation plan objectives and recommendations:</b> demonstrate the ability to incorporate the potential of assistive technology to enhance performance potential in the vocational choices of persons with disabilities.	<p>"The Use of Assistive Technology" workshop, resulting in reports that include recommendations for the use of assistive technology <i>or</i></p> <p>REHAB-360/560 Assistive Technology..... 2</p>	<p>Faculty review and approval of report on use and modification of evaluation tools <i>or</i></p> <p>Grade of "C" or better</p>
<b>Vocational rehabilitation process and philosophy:</b> outline and describe philosophical movements associated with vocational rehabilitation in the United States, describe the role of vocational rehabilitation/assessment in a diverse cultural environment, and describe the need that persons with disabilities have to be a part of society, focusing on strengths and assets that people bring with them to any situation.	<p>Research paper describing process and philosophy <i>or</i></p> <p>Demonstrated work experience of three or more years and professional development credentials <i>or</i></p> <p>REHAB-101 Introduction to Rehabilitation ..... 3</p>	<p>Faculty review and approval of research paper or work experience and professional credentials <i>or</i></p> <p>Grade of "C" or better</p>
<b>Occupational Information:</b> find and use various sources of national, state and local occupational information; link rehabilitation recommendations to the local labor market of the person being served.	<p>Demonstrate work experience as a job developer or placement specialist of two or more years <i>or</i></p> <p>"Job Development and Placement and Occupational Information" workshop resulting in appropriate work recommendations in a written report <i>or</i></p> <p>REHAB-310 Vocational Evaluation <i>or</i></p> <p>REHAB-410 Job Placement ..... 3</p>	<p>Faculty review of work experience or faculty review and approval of report recommendations <i>or</i></p> <p>Grade of "C" or better</p>
<b>Functional aspects of disability:</b> develop knowledge of the functional characteristics of disability and understand the impact of evaluating the skill and abilities of a person with a disability.	<p>Research paper on effect of disabling condition(s) in vocational rehabilitation <i>or</i></p> <p>Test out with faculty-developed standardized test <i>or</i></p> <p>REHAB-230 Psychosocial Aspects of Disability ..... 3</p>	<p>Faculty review and approval of research paper <i>or</i></p> <p>80 percent or better on the standardized test <i>or</i></p> <p>Grade of "C" or better</p>
<b>Individualized vocational rehabilitation/evaluation planning:</b> identify and delineate the individual needs of a person with a disability; state those needs in a plan for testing skills and abilities in relation to the accomplishment of a task or goal.	<p>"Rehabilitation Planning" workshop resulting in written vocational rehabilitation plan <i>or</i></p> <p>Work experience of two or more years, one letter of reference from a supervisor, three letters of reference from professional referral sources, and five letters of reference from consumers of services <i>or</i></p> <p>REHAB-310 Vocational Evaluation..... 3</p>	<p>Faculty review and approval of written rehabilitation plan of three separate case studies provided during workshop <i>or</i></p> <p>Faculty review and approval of work experience and letters of reference <i>or</i></p> <p>Grade of "C" or better</p>
<b>Vocational interviewing:</b> demonstrate the development of rapport, provision of agency and assessment information, initial identification of client strengths and limitations through the vocational interview; and create an understanding of the process of vocational rehabilitation through the vocational interview.	<p>"Vocational Interviewing and Facilitating Career Decision Making with Clients" workshop resulting in the videotaping of a vocational interview <i>or</i></p> <p>Demonstrate evidence of past work experience as a vocational counselor for two or more years <i>or</i></p> <p>Complete college level course work in vocational interviewing</p>	<p>Faculty review and approval of videotaped vocational interview <i>or</i></p> <p>Faculty review and approval of work experience <i>or</i></p> <p>Faculty review and approval of college level course work</p>
<b>Vocational report development and communication:</b> interpret, analyze, and synthesize participant data in a coherent and concise manner that addresses needs, strengths, and assets of the participant and develops pertinent recommendations through a report shared orally and in writing with the participant/client and referral source/rehabilitation counselor.	<p>"Vocational Rehabilitation Report Development and Communication" workshop <i>or</i></p> <p>Four written reports addressing needs of four case studies presented during the workshop <i>or</i></p> <p>REHAB-310 Vocational Evaluation..... 3</p>	<p>Faculty review and approval of the written report options and letters of reference <i>or</i></p> <p>Grade of "C" or better</p>



Intended Outcome	Learning Activity	Evaluation
<b>Standardized testing:</b> become familiar with the procedures for administering and interpreting standardized tests and application of tests to persons with disabilities, understand the impact of the disabling condition and the use of the most appropriate test, and develop a report explaining the impact of testing and using results with a vocational rehabilitation report.	Previous college course work in the use of psychometric testing and principles of validity and reliability <i>or</i> “Standardized Testing” workshop and paper describing use of standardized tests with persons with disabilities <i>or</i> Past work experience of two years or more where responsibilities include administering and interpreting standardized tests with a supervisor’s letter and at least one referral source/rehabilitation counselor <i>or</i> REHAB-420/620 Psychological Testing – People with Exceptional Need..... 3	Faculty review and approval of previous course work <i>or</i> Faculty review and approval of workshop paper <i>or</i> Faculty review and approval of work experience and letters of recommendation <i>or</i> Grade of “C” or better
<b>Job and Training Analysis:</b> perform a job analysis and develop a training analysis on a given job and do a written report; use the job analysis to determine the most appropriate evaluation tools to use with a person with a disability to measure performance ability; determine appropriate training or education to prepare for the job.	Read <i>A Guide to Job Analysis</i> or <i>The Revised Handbook for Analyzing Jobs</i> , participate in an online discussion of the materials and procedures of job analysis, select a job in the community that reflects occupational choices of agency participants, prepare a job analysis report, select and describe evaluation tools most appropriate for someone interested in the occupation <i>or</i> REHAB-410 Job Placement ..... 3	Faculty review and approval of the job and training analysis report and online discussion <i>or</i> Grade of “C” or better
<b>Functional Skills:</b> use appropriate tools and strategies to evaluate the functional daily living skills of an individual with a disability, select appropriate method to determine level of functional skill, develop and use situational assessment to establish an understanding of the individual functional skills of a person with a disability.	“Functional Skills Assessment” workshop and report <i>or</i> Demonstrate evidence of past work experience of two or more years involving vocational evaluation/ functional skills assessment and/or situational assessment with two letters of reference from referral sources <i>or</i> REHAB-470/670 Work Adjustment Services..... 3	Faculty review and approval of report <i>or</i> Faculty review and approval of work experience and letters of reference <i>or</i> Grade of “C” or better
<b>Assessment of Learning:</b> demonstrate awareness of learning styles and modalities of teaching through use of selected tests, modify test administration to the demands of the learning/teaching situation.	Previous college-level course work in educational psychology, special education, adult or vocational education that address issues of learning and learning styles and use of learning assessments <i>or</i> Paper describing learning styles and assessment of such styles, with assessment tool selection and modification	Faculty review and approval of course work <i>or</i> Faculty review and approval of paper
<b>Work samples and work sample systems:</b> demonstrate appropriate use of work samples and work sample systems as means of assessment within a given occupation, demonstrate appropriate use of work samples and systems with different types of disabling conditions.	“Work Sample and Work Sample Systems” workshop and research paper <i>or</i> REHAB-310 Vocational Evaluation..... 3	Faculty review and approval of research paper <i>or</i> Grade of “C” or better
<b>Behavioral Observation:</b> observe and note behaviors of individuals during the assessment process as asset or limitation behaviors in relation to the accomplishment of a target goal.	Read appropriate, assigned material and develop a written behavior observation of five clients where observations were critiqued by at least two other professionals, including the referring counselor <i>or</i> Demonstrate evidence of work experience in vocational rehabilitation/evaluation where duties included writing and/or noting behavioral observations, with a letter from a supervisor and two from referral sources attesting to accuracy and usability of the written behavioral observations, including examples of written behavioral observations	Faculty review and approval of observations, critiques and reports <i>or</i> Faculty review and approval of work experience, letters of reference, and examples of written behavioral observations

# Professional Development Certificates

## Introduction

UW-Stout offers professional development certificate programs in addition to its traditional majors and minors to meet the needs of those who wish to obtain additional knowledge and skills needed for personal growth and professional advancement.

While not a substitute for a degree or diploma, the certificate is an alternative credential for individuals seeking to obtain new knowledge and skills or to update their knowledge and skills in a specific area. Typically, a certificate is earned by completing a set of limited, well

defined learning outcomes focused on new or emerging processes or new knowledge and principles applied to practical problems or issues.

These course sets lead to a certificate only. If you're interested in earning a degree, please refer to the degree programs found elsewhere in this bulletin.

Additional information about professional development certificate programs is available online at [www.uwstout.edu/programs/pdc](http://www.uwstout.edu/programs/pdc).

## Applied Ethics

The Applied Ethics certificate is designed to empower professionals to apply ethical theory and reasoning in the workplace. The "ethical workplace" has emerged as an attainable ideal; understanding that ethics underscores all personal and professional interactions is essential to leaders in every profession.

Our approach is to bridge disciplines and professions in a systematic exploration and analysis of ethical issues facing individuals across professions and cultures. The program provides a core which introduces students to ethical principles, frameworks, and models. Courses cover engagement in ethical debate in a multicultural and globally diffused environment, encouragement of individual, professional, and civic responsibility to promote ethical leadership and enables students to provide coherent and compelling reasons justifying personal ethical stances and decisions.

Twelve credits are required for the Certificate. Students must maintain a "C" or higher in each of the four courses in order to be given credit toward the certificate.

PHIL-235	General Ethics .....	3
XXX-XXX	Capstone Experience .....	3

Students will choose 6 additional credits from an approved listing to complete certificate requirements. See the website at [www.uwstout.edu/programs/pdc/ae.cfm](http://www.uwstout.edu/programs/pdc/ae.cfm).

## Autism Spectrum Disorder Specialist

The Autism Spectrum Disorder Specialist certificate is designed to provide teachers, counselors, and other professionals with specialized training in working with students with autism. Graduates possess skills needed to assess students with ASD, implement individualized interventions, and evaluate programs for effectiveness.

SPED-472/672	Foundations of Autism .....	3
SPED-473/673	Behavior Interventions and Positive Behavior Supports .....	3
SPED-474/674	Augmentative Communication and Social Skills .....	3
SPED-475/675	Assessment and Methodology of Autism Spectrum Disorders ...	3

## Cisco Certified Network Associate Exam Preparation Certificate

The Cisco Certified Network Associate (CCNA) Exam Preparation Certificate prepares students to pass examinations through the use of lecture, online curriculum, and laboratory exercises. In order to earn the certificate, students must pass the following courses and professional exams:

TCS-131	Network operating System Fundamentals.....	2
TCS-141	Networking Fundamentals I .....	2
TCS-142	Networking Fundamentals II .....	2
TCS-143	Networking Fundamentals III .....	2
TCS-144	Networking Fundamentals IV .....	2
<b>Exam:</b> Cisco CCNA		

## Cisco Certified Network Professional Exam Preparation Certificate

The Cisco Certified Network Professional (CCNP) Exam Preparation Certificate prepares students to pass examinations through the use of lecture, online curriculum, and laboratory exercises. In order to earn the certificate, students must pass the following courses and professional exams:

TCS-441/641	Scalable Internetworks .....	3
<b>Exam:</b> Cisco Routing		
TCS-442/642	Remote Access Networks .....	3
<b>Exam:</b> Cisco Remote Access		
TCS-443/643	Multi-Layer Switched Networks .....	3
<b>Exam:</b> Cisco Switching		
TCS-444/644	Internetwork Troubleshooting.....	3
<b>Exam:</b> Cisco Support		

## Communicating with Emerging Media

Communicating with Emerging Media explores a variety of emerging media to investigate how these communication technologies are changing our workplaces, classrooms and social lives.

ENGL-745	Communication Strategies for Emerging Media .....	3
ENGL-740	Visual Rhetoric for Tech and Prof Communicators .....	3

## Creative Writing

The Creative Writing Certificate provides participants with expertise in areas of effective creative writing to meet a range of written communication and problem solving responsibilities in business, industry, and education. Participants must complete the following courses with a B or better to earn the certificate:

### Tier One – Required

ENGL-245	Creative Writing.....	3
ENGL-342	Creative Writing II .....	3

### Tier Two – Choice of two courses

ENGL-356	Creative Writing Workshop ( <i>repeatable</i> ):	
	1) Advanced Fiction Writing	
	2) Advance Poetry Writing	
	3) Advanced Creative Nonfiction Writing .....	6

### Tier Three – Choice of one

ENGL-371	Rhetoric and Style: Strategies of Augmentation or	
ENGL-388	Writing for the Internet .....	3

### Tier Four – Capstone Seminar

ENGL-471	Technical Communication and Consulting .....	3
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## E-Learning and Online Teaching

The use of the Internet to deliver education and training in fully online or web-enhanced formats is growing at a tremendous rate in all sectors of our society. An increasing number of K-12 schools and post-secondary institutions are using web-based technologies to facilitate learning, particularly at the secondary and post-secondary levels. Consequently, there is a growing need for highly skilled online distance educators to support online teaching and training across the nation and around the world. At the completion of the graduate certificate program candidates will demonstrate the knowledge and skills to effectively teach or train online and serve as leaders in distance learning initiatives.

EDUC 760	E-Learning for Educators .....	3
EDUC 761	Creating Collaborative Communities in E-Learning .....	3
EDUC 762	Assessment in E-Learning.....	3
EDUC 763	Instructional Design for E-Learning.....	3
EDUC 764	E-Learning Practicum .....	3

**Note:** The practicum may only be taken after all other courses are completed.

## Enterprise Technology

Enterprise technologies are umbrella systems with common data organization, storage, and data analysis tools interconnected through a computing network. The certificate provides participants with knowledge of the uses and impacts of enterprise technology in accordance with contemporary business practices. Professionals develop relevant understanding of policy, issues, and standards and implications on national and global communities.

ICT-305/505	Information Systems for Enterprise.....	3
ICT-401/601	Information Technology Policy and Audit .....	3
ICT-405/605	Enterprise Technology Seminar.....	3

## Entrepreneurship and Innovation

The Entrepreneurship and Innovation certificate is designed to facilitate current and prospective entrepreneurs and those currently employed in organizations to develop their entrepreneurial cadre through traditional and innovative approaches to entrepreneurship and developing innovative business models. In this respect, intended outcomes are for students to gain expertise in industry analysis, competitive analysis, market analysis, financial analysis and to develop an innovative approach to entrepreneurship.

INMG-600	Organizational Leadership.....	3
BUACT-747	Entrepreneurial Finance .....	3
BUMGT-747	Discovering and Developing Entrepreneurial Opportunities .....	3
BUMKG-746	Strategic Marketing for Entrepreneurs.....	3

## Evaluation Studies

Certificate-seeking students must complete all modules in sequence; students seeking course credit must complete all modules linked to a particular traditional course as indicated by the module number/letter, e.g., all PSYC 760 modules (A-U) must be completed to receive credit for PSYC-760.

### PSYC-760 Evaluation Studies: Planning and Designing the Evaluation (21 Modules) ..... 4

PSYC-760A	Describe the Item to be Evaluated .....	0.2
PSYC-760B	Identify and Engage Stakeholders .....	0.2
PSYC-760C	Use Research Findings to Identify Evaluation Focus and Questions .....	0.2
PSYC-760D	Describe the Evaluation Strategy and Expected Outcomes .....	0.2
PSYC-760E	Identify Models to Support the Evaluation .....	0.2
PSYC-760F	Identify Designs to Support the Evaluation .....	0.2
PSYC-760G	Identify Methods to Support the Evaluation .....	0.2
PSYC-760H	Conduct and Effective Needs Assessment .....	0.2
PSYC-760I	Develop a Schedule and Staffing Plan .....	0.2
PSYC-760J	Develop a Budget .....	0.2
PSYC-760K	Develop a Communication and Reporting Plan .....	0.2
PSYC-760L	Prepare and Negotiate a Proposal .....	0.2
PSYC-760M	Identify Potential Data Sources .....	0.2
PSYC-760N	Identify and Evaluate Existing Instruments and Tools .....	0.2
PSYC-760O	Construct Reliable and Valid Instruments .....	0.2
PSYC-760P	Develop a Data Collection Plan .....	0.2
PSYC-760Q	Design Appropriate Sampling Procedures .....	0.2
PSYC-760R	Address Threats to Data Trustworthiness .....	0.2
PSYC-760S	Develop a Data Analysis and Interpretation Plan .....	0.2
PSYC-760T	Plan for Data Storage, Collection, Security and Disposal .....	0.1
PSYC-760U	Pilot Test the Data Collection Instruments and Procedures .....	0.2

### PSYC-761 Evaluation Studies: Implementing the Evaluation Plan (17 Modules) ..... 4

PSYC-761A	Implement the Data Collection Plan, Schedule, and Budget .....	0.2
PSYC-761B	Conduct Effective Individual or Group Interviews .....	0.3
PSYC-761C	Conduct Effective Focus Groups .....	0.3
PSYC-761D	Conduct Effective Surveys .....	0.3
PSYC-761E	Conduct Effective Observations .....	0.2
PSYC-761F	Conduct Effective Cost Analyses .....	0.3
PSYC-761G	Record and Summarize Relevant Existing Data .....	0.2
PSYC-761H	Respond to Changes and Disruptions in Data Collection Activity .....	0.2
PSYC-761I	Assess the Trustworthiness of Collected Data .....	0.2
PSYC-761J	Use Appropriate Quantitative Analysis Procedures .....	0.3
PSYC-761K	Use Appropriate Qualitative Analysis Procedures .....	0.3
PSYC-761L	Review and Interpret Data in an Unbiased Way .....	0.2
PSYC-761M	Draw conclusions and Make Recommendations Based on Results .....	0.2



PSYC-761N	Use Multiple Methods of Communicating and Reporting .....	0.2
PSYC-761O	Discuss and Interpret the Findings with Stakeholders .....	0.2
PSYC-761P	Present the Findings to Diverse Audiences .....	0.2
PSYC-761Q	Facilitate or Monitor Changes Resulting from Recommendations .....	0.2

<b>PSYC-762</b>	<b>Evaluation Studies: Managing the Evaluation (7 modules) .....</b>	<b>1</b>
PSYC-762A	Adapt the Plan, Budget, and Schedule .....	0.1
PSYC-762B	Identify and Resolve Problems .....	0.1
PSYC-762C	Foster Reflection and Dialogue on the Evaluation .....	0.2
PSYC-762D	Manage Team Members, Consultants, and Technical Experts .....	0.1
PSYC-762E	Keep Interested Parties Engaged and Informed .....	0.1
PSYC-762F	Debrief Evaluation Team and Stakeholders .....	0.2
PSYC-762G	Assess Stakeholder Satisfaction with the Evaluation .....	0.2

<b>PSYC-752</b>	<b>Practicum in Program Evaluation .....</b>	<b>3</b>
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## Event and Meeting Management

The Event and Meeting Management certificate is designed to teach the skills and knowledge base necessary to be successful in the events and meetings industry. The certificate will help students understand the key areas of the industry and to possess the knowledge to manage meetings, events, and trade shows. The certificate will set the ground work for students and professionals working towards the Certified Meeting Professional (CMP) designation.

HT-357/551	Hospitality Convention/Meeting Planning .....	3
HT-442/642	Trade Show Management .....	3
HT-445/645	Event Management or .....	
GEM-445/645	Event Management .....	3
HT-447/647	International Convention and Meeting Management ..	3

## Human Resource Management

The Human Resource Management certificate program provides a broad base of knowledge to professionals seeking to expand their management competencies. The coursework is essential to prepare for the Professional Human Resource (PHR) exam, developed by the Society for Human Resource Management (SHRM) and recognized nationally as a significant credential for professional advancement in human resources. Competencies required by human resources professionals are best defined by content of the SHRM examination, and they are the same competencies covered in the coursework required for the certificate. The certificate in no way implies or guarantees that the student will pass the exam but should be seen as an important professional accomplishment.

The following courses provide the student with knowledge in all of the tested areas:

PSYC-381/581	Industrial Psychology .....	2
PSYC-382/582	Human Resource Management.....	3
PSYC-403/603	Management of Employee Reward Systems.....	3
PSYC-485/685	Recruitment and Selection of human Resources.....	3
TRHRD-360/560	Training Systems in Business and Industry.....	3
ECON-421/621	Collective Bargaining and Labor Relations .....	2
RC-381/581	Occupational Safety/Loss Control .....	2-3

## Improving the User Experience

Improving the User Experience is designed to study the rhetorical theories guiding user experience strategies and learn how to design and implement user-centered research aimed to improve the content and design of documentation and myriad other products.

ENGL-720	Rhetorical Theory .....	3
ENGL-730	User-Centered Research for Technical Communicators .....	3

## Institutional Research

The 14-credit hour graduate certificate in Institutional Research consists of eight courses, each containing a varying number of modules. This is the only certificate program in Institutional Research offered in Wisconsin, and one of seven programs offered nationally. Each module is designed to be either taken independently (*earning credit as each is completed*) or to be taken as a collective program. The online design of the program is career-focused, is dedicated to solving real-world problems through a research practicum experience, and allows for student creativity resulting in the maximum leverage of each student's individual strengths.

PSYC-720	Institutional Research: Introduction to the Field (11 modules)...	2
PSYC-721	Professional Practice and Ethics in Evaluation (5 modules) .....	1
PSYC-722	Project and Team Management/Interpersonal Competence (8 modules) .....	2
PSYC-723	Research Methods (9 modules) .....	2
PSYC-724	Data Collection (3 modules) .....	1
PSYC-725	Data Analysis (4 modules).....	1
PSYC-726	Institutional Research Applications (9 modules) .....	2
PSYC-727	Practicum in Institutional Research .....	3

## Instructional Design

Instructional design is the art and science of creating instruction for learners in a systematic manner that leads to maximum knowledge transfer. The graduate-level Instructional Design professional development certificate provides students with the skills, knowledge, and abilities necessary to design effective, technology enhanced instruction, select appropriate instructional strategies, develop computer mediated training, and manage instructional development projects.

EDUC-765	Trends and Issues in Instructional Design .....	3
EDUC-766	Instructional Strategies and Assessment Methods .....	3
EDUC-767	Designing Computer-Based Training (CBT).....	3
EDUC-768	Project Management for Instructional Development .....	3

## Organization Development and Consulting

The Organization Development and Consulting certificate is designed to empower professionals to become proficient management consultants. Graduates with this certificate fulfill the rapidly growing industry need for prepared management analysts. Students develop proficiencies in a range of skills required to positively research, develop, lead, and evaluate organizational change initiatives.

INMG-616	People Process Culture.....	3
INMG-715	Organizational Consulting.....	3
INMG-750	Organization Development.....	3



## Quality Management

The certificate program is designed to provide technical and professional responsibility at the Sigma Six Green Belt level to those in industry. Students in this program are prepared for the American Society for Quality (ASQ) Six Sigma certification through examinations upon completion of a project through their organizations.

INMGT-320/520	Quality Tools .....	3
INMGT-325/525	Quality Management .....	3
INMGT-410/610	Six Sigma Quality Improvement Methods.....	3

## Supply Chain Management

The Supply Chain Management certificate provides students with expertise to assume, concurrently with other technical and professional responsibilities, the management of components within their supply chain. Course work coincides with American Production and Inventory Control Society objectives for its certification examination.

INMGT-305/505	Production and Inventory Control .....	3
INMGT-405/605	Production and Inventory Control Practicum.....	2
INMGT-320/520	Quality Tools .....	3
BUMKG-337/537	Purchasing and Supply Chain Management .....	3
INMGT-325/525	Quality Management.....	3
BUSCM-338/538	Principles of Logistics.....	3

### Selectives

Select at least 5 credits from the list of courses supplied by the department.

## Sustainable Enterprise Management

The Sustainable Enterprise Management professional development certificate focuses on the relevant and applicable knowledge needed to assist organizations to be profitable while contributing to environmental sustainability and social responsibility.

The certificate is designed to provide a professional learning experience for individuals interested in expanding their expertise in sustainable business. The 15 credit certificate includes the following courses:

SMGT-230	Triple Bottom Line Accounting for Managers .....	3
SMGT-235	Economics in Society and Sustainability.....	3
SMGT-331	Sustainable Organizational Finance .....	3
SMGT-355	Management and Environmental Information Systems or	
SMGT-350	Operations Management and Sustainability.....	3
SMGT-430	International Management for a Sustainable World ....	3

## Sustainable Management Science

The Sustainable Management Science Certificate focuses on improving sustainability in the workplace and strengthening the larger community through increased environmental awareness, productivity, and efficiencies.

The certificate is designed to provide a professional learning experience for individuals interested in expanding their expertise in areas such as energy, waste management and natural resource management. The 12 credit certificate includes the following courses:

SMGT-310	Ecology for Sustainable Management .....	3
SMGT-315	Global Environmental Chemistry .....	3
SMGT-320	Energy for Sustainable Management .....	3
SMGT-325	Natural Resource Management .....	3

## Training Design, Development and Evaluation

The certificate in Training Design, Development and Evaluation prepares professionals for expertise in training and development management. Students develop relevant knowledge and application of instructional system design models in order to expertly analyze training models, determine appropriate training methods and techniques, and evaluate training systems. Graduates with this certificate fulfill the rapidly growing industry need for prepared training and development managers.

Three courses totaling nine credits are needed to complete the certificate.

ICT-710	Learning Technologies .....	3
TRHRD-730	Systematic Training Design and Development .....	3
TRHRD-731	Systematic Training Measurement and Evaluation .....	3

## Web Technology

The certificate provides participants with the knowledge needed to have a broad understanding of how to plan, develop, implement and evaluate standards based websites and strategies for their success. Professionals develop relevant understanding and use of information and communication technologies to increase the probability that the targeted end users are able to find and access the information or services they are seeking, and organizations are able to track the use and performance of their content through actionable data.

ICT-311/511	Information and Communication Technologies Analytics .....	3
ICT-375/575	Web Production and Distribution .....	3
ICT-475/675	Dynamic Web Technologies .....	3
ICT-485/685	Search Engine Optimization.....	3

## Women and Gender Studies

This certificate introduces students to concepts crucial to the study and application of knowledge in the field of women and gender studies as they enter a highly competitive job market. Certificate recipients will be able to apply and articulate interdisciplinary knowledge specific to women and gender studies such as social construction of gender in relation to such factors as race, ethnicity, class, sexuality, disability, and age.

WGS-210	Introduction to Women Studies .....	3
HIS-321	U.S. Women's History .....	3
SOC-275	Sociology of Gender Roles .....	3
ANTH-356	Women in Cross Cultural Perspectives .....	3

## Workplace Diversity

The Workplace Diversity certificate is designed to assist managers and HR professionals in dealing with an ever more diverse workforce. This program is designed to show managers how to capitalize on this diverse workforce and improve long term organizational success by bringing fresh ideas and new perspectives to the world of work.

Our approach is focused upon how individuals and groups can use their differences to become more creative and resilient. Courses focus on issues like changing Human Resource Practices and organizational change methods that will bring effective change and a sense of inclusion to the organization. The program also includes courses about unique features of specific minority groups, their culture and histories, to sensitize the student to cultural differences. Specifically, the program focuses on differences in: race and ethnicity, gender identity, age, disability, religion and sexual orientation.

### 1. Foundation

PSYC-XXX	Foundations of Workplace Diversity.....	3
SPCOM-312	Intercultural Communications .....	3

Choose one course from Area 2 and one course from Area 3.

### 2. Ethnicity/Race

PSYC-340	Psychology of Individual and Group Differences.....	3
HIST-322	African-American History.....	3
HDFS-275	Race Matters: Interdisciplinary Investigations .....	3
EDUC-336	Multiculturalism: Issues and Perspectives .....	3

### 3. Gender

INMGT-415	Inclusivity in Management.....	3
SOC-275	Sociology of Gender Roles .....	3
HIST-321	U.S. Women's History.....	3
HDFS-350	Women's Relationships in Later Life ** .....	3
SRVM-120	Gender in Service Management.....	3
WGS-210	Introduction to Women and Gender Studies .....	2

Choose a course from two of the following areas (4-7):

### 4. Age

HDFS-347	Ethics in Aging .....	2
HDFS-340	Human Development: Late Adulthood .....	3
HDFS-350	Women's Relationships in Later Life ** .....	3
REHAB-355	Rehabilitation of the Older Disabled Worker.....	2

### 5. Disability

REHAB-230	Psychosocial Aspects of Disability .....	3
HT-360	Tourism for Persons with Disabilities.....	2

### 6. Religion

XXX-XXX	Religious Issues in the Workplace .....	3
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### 7. Sexual Orientation (LGBTQ)

HDFS-352	Sexual Minority Individuals and Families.....	2
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### 8. Capstone (required)

PSYC-XXX	Applied Diversity Organizational Strategies .....	3
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\*\* HDFS-350 may only be taken to count toward one area.

## GRADUATE BULLETIN COURSE DESCRIPTION INTRODUCTION

**Course descriptions** are listed (in this section) in alphabetical order by curricular subject abbreviations. Graduate courses are those numbered from 500 through 899. All numbers below 500 are for undergraduate credit.

### Interpreting Course Descriptions

This document will help you understand the various codes used in the course descriptions.

A typical course description appears like this:

**COUN- 788 Counseling Process Laboratory** (3.00 cr.)

Repeatable: No

Basic attending and influencing skills used in the one-to-one and one-to-group situations involving laboratory experiences, such as counseling, feedback, critiquing, modeling, assessing and evaluating.

*Prerequisite or Corequisite: COUN-750*

and is comprised of the following components, in order:

### Subject Area Code

**AEC** Architecture, Engineering and Construction  
**ANTH** Anthropology  
**APRL** Apparel Design/Manufacturing  
**ART** Art  
**ARTH** Art History  
**BIO** Biology  
**BUACT** Business Accounting  
**BUINB** Business International Business  
**BULGL** Business Legal   **BUMGT** Business Management  
**BUMGT** Business Management  
**BUMIS** Business Management Information Systems  
**BUMKG** Business Marketing  
**BURTL** Business Retail  
**BUSCM** Supply Chain Management  
**CAHSS** College of Arts, Humanities and Social Sciences  
**CHEM** Chemistry  
**CNS** Cognitive Neuroscience  
**COUN** Counseling  
**CS** Computer Science  
**CSTEM** College of Science, Technology, Engineering & Mathematics  
**CTE** Career and Technical Education  
**DES** Design

**ECE** Early Childhood Education  
**EDPSY** Educational Psychology  
**EDUC** Education  
**ELEC** Electricity/Electronics  
**ENGGR** Engineering Graphics  
**ENGL** English  
**FCSE** Family and Consumer Sciences Education  
**FN** Food and Nutrition  
**GDD** Game Design and Development  
**GEM** Golf Enterprise Management  
**HDFS** Human Development and Family Studies  
**HLTED** Health Education  
**HT** Hospitality and Tourism  
**HWF** Health, Wellness and Fitness  
**ICT** Information Communication Technologies  
**INMGT** Industrial Management  
**ITC** Instructional Technology Coordinator  
**ITM** Information Technology Management  
**LIT** Literature  
**MATH** Mathematics  
**MBE** Marketing and Business Education  
**MECH** Engineering Mechanics  
**MFGE** Manufacturing Engineering  
**MFGT** Manufacturing Technology  
**MFT** Marriage and Family Therapy  
**MSCS** Mathematics, Statistics and Computer Science  
**PHOTO** Photography  
**PHYS** Physics  
**PKG** Packaging  
**POWER** Power  
**PSYC** Psychology  
**RC** Risk Control  
**RD** Design, Research and Development  
**RDGED** Reading Education  
**REHAB** Vocational Rehabilitation  
**SCIED** Science Education  
**SCOUN** School Counseling  
**SMGT** Sustainable Management  
**SOC** Sociology  
**SOCWK** Social Work  
**SPCOM** Speech Communication  
**SPED** Special Education  
**SPSY** School Psychology  
**SRVM** Service Management  
**STAT** Statistics  
**STMED** Science, Technology and Mathematics Education  
**SUST** Sustainability  
**TECED** Technology Education  
**TECH** Technology  
**TRANS** Transportation/Energy

**TRDIS** Transdisciplinary

**TRHRD** Training and Human Resource Development

**WGS** Women and Gender Studies

## Course Level

The three digits of the course codes refer to the course level. Graduate courses are numbered from 500 to 899. The 100 through 400 series are undergraduate courses.

## Course Title

## Credits

UW-Stout defines a credit hour as an amount of work represented in intended learning outcomes and verified by evidence of student achievement that reasonably approximates: [1] At least one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately 15 weeks for one semester hour of credit, or the equivalent amount of work over a different amount of time; or [2] At least an equivalent amount of work as required in part one [1] of this definition for other academic activities as established by UW-Stout, including distance education, online, hybrid, or other indirect faculty instruction, laboratory work, internships, co-op experiences, studio work, and other academic work leading to the award of credit hours..

## **AEC – Architecture, Engineering and Construction**

### **AEC- 535 Building Electrical & Control Systems (3.00 cr.)**

Repeatable: No

Fundamental theory and application of the design, layout, and construction of electrical and building control systems. Principles of code, design, construction documents reading, means and methods applied to electrical systems, lighting, building controls, and sustainable topics as related to electrical scope of work.

*Prerequisites: Take AEC-237*

### **AEC- 570 Construction Estimating I (3.00 cr.)**

Repeatable: No

Estimating and analyzing material, labor, equipment, methods of construction, overhead and profit, and submitting these factors in the form of a bid.

### **AEC- 595 Seminar (1.00 - 2.00 cr.)**

Repeatable: Yes

(Title will reflect specific construction content). Current and projected methods, concepts, technologies and innovations in construction.

### **AEC- 638 Contract Requirements And Specifications (3.00 cr.)**

Repeatable: No

Principles of contract requirements and construction specification organization. Development of basic skills of project manual preparation. Demonstration of role of specifications within the construction process and relationship to other construction contract documents.

### **AEC- 652 Environmental Systems - HVAC (3.00 cr.)**

Repeatable: No

Principles of heating, ventilating and air conditioning; analysis and selection of systems and equipment.

### **AEC- 653 Environmental Systems - Plumbing & Electrical (3.00 cr.)**

Repeatable: No

Plumbing, electrical and illumination systems for light and heavy construction.

### **AEC- 658 Structural Systems--Wood And Steel (3.00 cr.)**

Repeatable: No

Analysis, selection, and delineation of wood and steel structural components and systems in buildings.

### **AEC- 659 Structural Systems-Concrete And Masonry (3.00 cr.)**

Repeatable: No

Analysis, selection, and delineation of concrete and masonry structural components and systems in buildings.

### **AEC- 660 Sustainable Construction (3.00 cr.)**

Repeatable: No

Survey of principles of sustainable construction, including building design and delivery methods. Ethics and stewardship as part of the constructor's role in the built environment. Examination of domestic

and global Green building assessment systems. Emphasis is placed on preparing the student for the LEED building assessment system.

### **AEC- 661 Building Codes and Regulations (3.00 cr.)**

Repeatable: No

Extensive examination of the International Building Code. Intent and purpose of codes and regulations are presented, discussed, and reasoned. Contemporary issues in the construction industry are evaluated by students. Particular emphasis is placed on preparing the student for the ICC Certified Inspector examination.

### **AEC- 670 Construction Estimating II (2.00 cr.)**

Repeatable: No

Computer-based estimating systems for construction. Take-off, pricing, bid preparation, resource and cost studies, and database operations.

### **AEC- 671 Project Scheduling And Cost Control (3.00 cr.)**

Repeatable: No

Total concept of construction industry: contracting, financing, bidding, planning, organizing, coordinating, and controlling functions and techniques.

*Prerequisites: Take AEC-570*

### **AEC- 672 Management Of Construction (3.00 cr.)**

Repeatable: No

Organizing, managing and operating the contracting firm.

### **AEC- 702 Construction Logistics and Project Planning (3.00 cr.)**

Repeatable: No

Leaders in today's construction industry employ logistics and project planning to improve productivity, efficiencies, and profitability. This course will develop the learner's understanding of tools, technologies, and advanced management processes used during all phases of the construction project and explore development and implementation of comprehensive material and site logistics and planning.

### **AEC- 703 Construction Project Delivery Systems (3.00 cr.)**

Repeatable: No

Develop an advanced level of student's knowledge and critical awareness for procuring construction management projects, including complex project factors that influence choice of appropriate procurement systems. Learning advanced understanding of contractual forms available in the construction industry, alternate project delivery (APD) systems, and their appropriateness in various construction scenarios.

### **AEC- 704 Construction Strategy, Economics and Finance (3.00 cr.)**

Repeatable: No

Develop application of economic and financial strategies in construction, including extensive analysis of competitive forces in a construction organization. Examination of micro- and macro-economic forces that influence the construction industry, particularly in federal, state and local governments. Examination of capital for both long- and short-term financing construction projects.

**AEC- 710 Architectural Preservation (3.00 cr.)**

Repeatable: No

In-depth examination of the principles and practices of architectural preservation. Addresses subjects of architectural history, intervention approaches, government preservation agencies, and technical, legal, and economic aspects related to preservation.

**AEC- 711 Environmental Concerns in Construction (3.00 cr.)**

Repeatable: No

Human health and environmental impacts of the built environment. Sustainable inputs, outputs, and impacts of construction materials. Embodied energy and carbon of construction materials are evaluated.

**AEC- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**AEC- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**ANTH – Anthropology****ANTH- 630 Ojibwa Lifeway's (2.00 - 4.00 cr.)**

Repeatable: No

In depth, interactive study of Ojibwa culture within a Wisconsin reservation community. A special course fee applies.

**ANTH- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**APRL – Apparel Design/Manufacturing****APRL- 545 Textiles For Interiors (2.00 cr.)**

Repeatable: No

Raw materials, fabric structures, specifications, and legislation related to quality, performance,

**APRL- 555 Special Topics in ADD (2.00 cr.)**

Repeatable: No

**APRL- 573 Advanced Pattern Development (3.00 cr.)**

Repeatable: No

Advanced pattern development by flat pattern making and draping methods, with an emphasis on creative pattern modifications and fit evaluation for global production.

**APRL- 590 Practicum In Textile Design (3.00 cr.)**

Repeatable: No

Use of textile design techniques as means of artistic expression: stitchery, weaving, knotting, applique and hooking; emphasis on good design and creativity.

**APRL- 590 CAD For Apparel Images (3.00 cr.)**

Repeatable: No

Using CAD programs, students create and communicate apparel collections for various target markets based on market research.

**APRL- 593 Garment Engineering/Production (3.00 cr.)**

Repeatable: No

Knowledge of the global fashion industry including development, merchandising, and engineering of soft goods production applied in a team-based laboratory simulation.

**APRL- 594 Knit Design And Technology (3.00 cr.)**

Repeatable: No

Stitch formation and patterning of warp and filling knits. Influences on aesthetics and performance of knit fabrics. Design and production of knitted fabric and garments on a flatbed knitting machine, including use of CAD techniques.

**APRL- 605 International Study Tour To The Fashion Industry (1.00 - 6.00 cr.)**

Repeatable: Yes

Tour of international centers of clothing, textiles, and related arts. Study of the cultural patterns. Program includes lectures by consultants and seminars on the various phases of the fashion and fabric industries.

Department consent

**APRL- 619 National Study Tour To Fashion Industry (1.00 cr.)**

Repeatable: Yes

Five-day visit to New York or alternate city: study hours, discussions and lectures by leaders in American fashion market.

Department consent

**APRL- 664 Functional Design and Development (3.00 cr.)**

Repeatable: No

Work teams apply physical science theory and creative problem solving methods to innovate functional clothing for specific needs, occupations, and activities.

**APRL- 670 Portfolio Development For Apparel Design And Development (3.00 cr.)**

Repeatable: No

A capstone course: resume and job search development; organization and updating projects from previous courses; creation of new portfolio projects that display a high level of apparel design and development skills and competencies.

**APRL- 685 Apparel Design Studio (3.00 cr.)**

Repeatable: No

Creation, development, and formal presentation of original designs using flat pattern and/or draping techniques. Preparation of

professional portfolio to include CAD and other illustrative materials representative of individual expertise.

**APRL- 749 Cooperative Education Experience** (1.00 - 6.00 cr.)

Repeatable: Yes

Work and study in an approved business/industry position related to the student's major. Selection by application and interview.

Department consent

**APRL- 769 Design Option Thesis** (2.00 - 6.00 cr.)

Repeatable: No

Independent research under direction of investigation adviser.

Culminating in a design show. A descriptive paper written according to thesis standards, including slides, will be presented.

Department consent

*Prerequisite: take EDUC-740*

**APRL- 780 Advanced Draping** (1.00 cr.)

Repeatable: No

Manipulation of various fabrics on a dress form to develop garments from given and self-designed sketches that reflect advanced techniques. Construct garments from patterns.

*Prerequisites: Take APRL-680*

**APRL- 781 Advanced Flat Pattern** (2.00 cr.)

Repeatable: No

Draft and develop paper patterns for garments by varying a master pattern from given and self-designed sketches that reflect advanced techniques. Construct garments from pattern.

Instructor's consent

**APRL- 790 Seminar In Textiles, Clothing And Retail Marketing** (2.00 cr.)

Repeatable: No

Review, evaluation and interpretation of current research in textiles, clothing and retail marketing.

Department consent

**APRL- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **ART – Art**

**ART- 507 Aesthetics in the Studio** (3.00 cr.)

Repeatable: No

Introduction to the problems of aesthetics, such as interpretation, creation, and experience of art as it relates to studio practices.

**ART- 601 Life Drawing II** (3.00 cr.)

Repeatable: No

Continued drawing and analysis of the structure of the human figure.

Instructor's consent

**ART- 603 Life Drawing III** (1.00 - 3.00 cr.)

Repeatable: Yes

Self-directed study of Life Drawing; continued development of individual research, drawing skills, and studio discipline.

*Prerequisite: ART-601*

**ART- 610 Painting III** (3.00 cr.)

Repeatable: No

Self-directed study of painting. Continued development of individual research, painting skills, and studio discipline.

**ART- 611 Contemporary Sculptural Practices III** (1.00 - 3.00 cr.)

Repeatable: Yes

Advanced problems in sculpture, through the exploration and utilization of media for creative and expressive ends. Repeatable; topics and projects change.

Instructor's consent

**ART- 614 Color Seminar** (4.00 cr.)

Repeatable: No

A case-study course exploring methodologies for use of color. Content includes gender-specific, historic, psychological, social, and symbolic use of color; color sensibilities in other cultures; and roots of color beliefs.

Instructor's consent

**ART- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **ARTH – Art History**

**ARTH- 720 History of Design Seminar** (3.00 cr.)

Repeatable: No

Focused study of the history and methodology of design.

**ARTH- 756 Special Topics in Design History** (3.00 cr.)

Repeatable: Yes

Focused study of topics within Design History, for example Japanese Design (non-Western); Walt Disney (American); The Bauhaus (European). Repeatable.

## **BIO – Biology**

**BIO- 560 Introduction To Neuroscience** (3.00 cr.)

Repeatable: No

Investigation of the human nervous system at the molecular, cellular and system level. Organization and function of neuronal cells, sensory receptors, sensory and motor pathways and integration centers. Introduction to electro- physiology, biochemistry of neurotransmitters and receptors, neuropharmacology, development of the nervous system, and consequences of neuronal disease and trauma.



**BIO- 561 Psychobiology (2.00 cr.)**

Repeatable: No

Biological basis of human and animal behavior: evolution of physiological and behavioral adaptations of organisms to their environment.

**BIO- 562 Advanced Physiology (3.00 cr.)**

Repeatable: No

Human physiology with emphasis on integration of the nervous, muscular, cardiovascular, immune, renal, respiratory, digestive and endocrine systems. Cellular and molecular processes are studied. Computer simulations and experiments in frog physiology will be utilized.

**BIO- 606 Food Microbiology (3.00 cr.)**

Repeatable: No

Methods of food preservation, their effectiveness and related food spoilage by microorganisms. Quality control techniques used to determine presence of specific groups of economically important microorganisms.

**BIO- 660 Epidemiology (3.00 cr.)**

Repeatable: No

Principles of epidemiology, determinants of major public health problems including infectious and chronic diseases, environmental health, and emerging threats.

**BIO- 662 Environmental Toxicology (3.00 cr.)**

Repeatable: No

Environmental toxins found in the air, water, and soil and their impacts on the health and well-being of humans, animals, and plants. Detection, measurement, analysis, and regulation of select classes of contaminants, including emerging contaminants of concern.

**BUACT – Business Accounting****BUACT- 546 Seminar (1.00 - 3.00 cr.)**

Repeatable: Yes

Current topics in business. (Title will reflect specific business content.)

**BUACT- 730 Financial and Cost Analysis (3.00 cr.)**

Repeatable: No

Overview of financial accounting concepts and analysis combined with a strong emphasis on manufacturing costs and managerial decision making. Application of cost information in the strategic planning and measurement process for corporations, including capital budgeting.

**BUACT- 747 Entrepreneurial Finance (3.00 cr.)**

Repeatable: No

Focuses on ethical financial management within entrepreneurial and innovative organizations from idea generation through start up and continuing operations. Provides students with a higher understanding of the financial environment in which entrepreneurial

organizations operate.

*Must be admitted to the graduate professional development certificate: Entrepreneurship and Innovation*

**BUINB – Business International Business****BUINB- 538 International Logistics (3.00 cr.)**

Repeatable: No

International logistics strategy: customer service, inventory, transportation, packaging, warehousing, storage, exporting, licensure, joint ventures, ownership documentation, terms of trading, organization, financial and management skills.

**BUINB- 546 Seminar (3.00 cr.)**

Repeatable: No

Theory and practice of doing business in India by experiencing the culture first-hand. (Study abroad)

**BUINB- 567 International Management (3.00 cr.)**

Repeatable: No

Theory and practice of managing international organizations, including socio-cultural aspects and group dynamics of international businesses and service organizations.

**BUINB- 685 International Marketing (3.00 cr.)**

Repeatable: No

Principles and policies of marketing goods and services in international markets. Concepts, strategies and policies of world trade and multinational firms.

**BUINB- 688 International Business Practicum (3.00 cr.)**

Repeatable: No

Assist an actual business in developing their international marketing plan. Students, under the supervision of a faculty member, determine a product's foreign marketability. Department consent

*Prerequisite: take BUINB-685*

**BUINB- 689 International Business Policies (3.00 cr.)**

Repeatable: No

Students develop the ability to solve business problems in the international arena using a scientific approach to decision making by studying business cases on international policy formulation and administration, manufacturing, marketing, finance, accounting, personnel and public relations functions.

**BULGL – Business Legal****BULGL- 546 Seminar (1.00 - 3.00 cr.)**

Repeatable: Yes

Current topics in business. (Title will reflect specific business content.)

**BULGL- 601 Legal Environment Of Business (2.00 cr.)**

Repeatable: No

Changing relationship of government and industry: regulatory

legislation, administrative agencies, national policies and social control.

**BULGL- 673 Legal Aspects Of Construction** (3.00 cr.)

Repeatable: No

Analysis of contracts and documents used in building construction industry: rights of the parties. Labor relations: law and labor, legality of strikes, legality of picketing and boycott as economic pressure, unfair labor practices, employer and union, rights and responsibilities of supervisor and worker.

**BUMGT – Business Management**

**BUMGT- 546 Seminar** (1.00 - 3.00 cr.)

Repeatable: Yes

Current topics in business. (Title will reflect specific business content.)

**BUMGT- 680 Entrepreneurship: Small Business Planning** (3.00 cr.)

Repeatable: No

Concepts, strategies, and applications involved in entrepreneurship. Profile of entrepreneurs and the risks and rewards, creating products and services for the market place, going into business--start-up, buy out, franchise--legal and financial aspects. Preparing a business plan required.

**BUMGT- 690 Strategic Management And Business Policy** (3.00 cr.)

Repeatable: No

Integrates previous business studies, develops ability to solve business problems through scientific approaches to decision-making. Students use business cases on policy formulation and administration: manufacturing, marketing, finance, accounting, personnel, and public relations functions.

**BUMGT- 747 Discovering and Developing Entrepreneurial Opportunities** (3.00 cr.)

Repeatable: No

Identify entrepreneurial and innovative opportunities in an increasingly fast-paced economic environment. Develop new sources of differentiation to re-configure or re-segment existing markets, create design breakthroughs, generate innovative ideas for redesigning existing products, and develop strategic business options to move a new or existing venture toward profitability and sustainability.

*Prerequisite: take BUMKG-746*

**BUMGT- 760 Strategic Planning & Deployment** (2.00 cr.)

Repeatable: No

Introduction to corporate planning, strategy and policy. Orientation to generalized planning process and the outputs of planning system. A discussion of planning decision sub-system, strategic information sub-system, planning organizational sub-system and planning management sub-system.

Instructor's consent

**BUMGT- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**BUMIS – Business Management Information Systems**

**BUMIS- 546 Seminar** (1.00 - 3.00 cr.)

Repeatable: Yes

Current topics in business. (Title will reflect specific business content.)

**BUMKG – Business Marketing**

**BUMKG- 508 Marketing For Non-Profit Organizations** (2.00 cr.)

Repeatable: No

Strategic marketing planning process, marketing audit, marketing strategy development, positioning concept, market research, marketing mix, communication strategies and ethical issues for non-profit organizations.

**BUMKG- 546 Seminar** (1.00 - 3.00 cr.)

Repeatable: Yes

Current topics in business marketing. (Title will reflect specific content.)

**BUMKG- 550 E-Business Strategy And Practice** (3.00 cr.)

Repeatable: No

Development and growth of Internet marketing. An examination of e-business basics, business models, current and future trends, major issues, evaluation of model design and Internet marketing plans.

**BUMKG- 585 Target Marketing** (3.00 cr.)

Repeatable: No

The study and application of methods used to identify viable market segments; use of demographic, psychographic and cultural research findings to successfully market products and services to various market segments.

*Prerequisites: take BUMKG-330*

**BUMKG- 679 Marketing Research** (3.00 cr.)

Repeatable: No

Experimental and survey techniques to secure information for successful marketing; primary and secondary sources; data collection, compilation and analysis methods; effective communication of conclusions and recommendations to management.

**BUMKG- 746 Strategic Marketing for Entrepreneurs** (3.00 cr.)

Repeatable: No

Techniques used by entrepreneurial organizations to make strategic marketing decisions with emphasis on innovative approaches to marketing concepts using social media, the Internet, and quantitative and qualitative data analysis of consumer markets. Outcomes include a written economic analysis, business model and synthesized marketing plan for an existing or proposed organization.

*Must be admitted to the graduate professional development certificate: Entrepreneurship and Innovation*

**BUMKG- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

**BURTL – Business Retail**

**BURTL- 519 International Economic Trends In Textiles And Clothing** (3.00 cr.)

Repeatable: No

Economic importance of the textile and apparel industries in the United States and the world.

**BURTL- 522 Merchandising And Marketing An Apparel Line** (2.00 cr.)

Repeatable: No

Merchandising and marketing of product lines from manufacturer to retailer to consumer.

**BURTL- 527 Store Management** (3.00 cr.)

Repeatable: No

Develop management skills for retail stores of varying size.

**BURTL- 535 Retail Grocery** (2.00 cr.)

Repeatable: No

Broad overview of the packaged goods industry from a retail grocery perspective.

**BURTL- 535 Special topics In Retail Merchandising And Management** (1.00 - 3.00 cr.)

Repeatable: Yes

**BURTL- 550 Marketing To Aging & Minority Consumers** (2.00 cr.)

Repeatable: No

Identify product and service needs of Native, African, Asian and Hispanic Americans, and aging consumers. Interpret demographic, psychological and cultural data of these special populations and develop merchandising strategies.

*Prerequisites: take BUMKG-330*

**BURTL- 617 Social/Psychological Aspects Of Clothing** (3.00 cr.)

Repeatable: No

Social and psychological influence of dress on individual and group behavior patterns.

**BURTL- 619 National Study Tour To Fashion Industry** (1.00 cr.)

Repeatable: Yes

Five-day visit to New York or alternate city: study hours, discussions and lectures by leaders in American fashion market.

Department consent

**BURTL- 625 Current Retail Strategies For A Differential Advantage** (2.00 cr.)

Repeatable: No

Comparative analysis of specific retail corporations' strategies to gain a differential advantage with their merchandising and operational methodology.

**BURTL- 626 Fashion Retailing Practicum** (4.00 cr.)

Repeatable: No

Observation and structured experience in merchandising procedures dealing with complete operations and management of retail establishment.

**BURTL- 650 Retail Practicum I** (2.00 cr.)

Repeatable: No

Strategic planning for merchandising and operating the student-operated laboratory store to include market analysis, assortment planning, product development, merchandise procurement, promotional planning, merchandise presentation and store layout.

*Prerequisites: take BURTL-390*

**BURTL- 651 Retail Practicum II** (2.00 cr.)

Repeatable: No

Structured experience in executing the merchandising and operation plan developed in Retail Practicum I to include evaluation of retail performance and projections for continuing operation of the student-operated retail store.

*Prerequisite: BURTL-650*

**BURTL- 690 Advanced Merchandise Planning Control** (3.00 cr.)

Repeatable: No

Application of merchandise theory and techniques to budget, manage, and adjust actual purchases, inventory, and sales of an actual retail business.

**BURTL- 790 Seminar In Textiles, Clothing And Retail Marketing** (2.00 cr.)

Repeatable: No

Review, evaluation and interpretation of current research in textiles, clothing and retail marketing.

Department consent

**BURTL- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**BUSCM – Supply Chain Management**

**BUSCM- 538 Principles Of Logistics** (3.00 cr.)

Repeatable: No

Applies systems approach to plan movement and storage of raw materials, components and finished goods from point of origin to point of consumption. Focuses on transportation and warehousing decisions, channel structures, physical distribution, materials management, and supply chain concepts.

**BUSCM- 637 Procurement, Sourcing And Supply Chain Management** (3.00 cr.)

Repeatable: No

Processes used in procuring goods and services; analyzing and selecting global sources of supply; economics of total cost of ownership; importance of quality, delivery, ethics, and legal aspects of supplier management; negotiation principles. Recommended: proficiency with spreadsheet software.

**BUSCM- 639 Seminar: Supply Chain Systems Design (3.00 cr.)**

Repeatable: No

Synthesizing experience in supply chain, cases, problems and team/individual research will focus on analyzing, designing and modeling cost effective supply chain systems that utilize innovative technology and business practices for procuring, manufacturing, storing, and moving goods from suppliers, manufacturers, distributors, retailers and end customer.

*Prerequisites: take BUMKG-638 and INMGT-505*

**BUSCM- 658 Negotiation and Contracts (3.00 cr.)**

Repeatable: No

Processes, analysis, techniques and strategies used to negotiate and develop contracts. Defining roles and importance of relationships. Identifying interests, developing and using power, creating and evaluating criteria, exploring options, analyzing offers, dealing with objections and impasses, reaching final agreement. Converting business agreements into contracts. Importance of fairness and ethics.

*Prerequisite: take BUMKG-537*

**BUSCM- 660 Supply Chain Management Design I Capstone (3.00 cr.)**

Repeatable: No

Synthesizing capstone experience focuses on planning, diagnosing and analyzing root causes of poor supply chain cost, service and operational performance. Students analyze and diagnose supply chains for strategy, organization, process, technology, business models, best practices, and information and material flow.

**BUSCM- 661 Supply Chain Management Design II Capstone (3.00 cr.)**

Repeatable: No

Continuation of Supply Chain Design I focusing on design, model and recommended integrated supply chain solutions from the perspective of strategy, people, technology, business models, and best practices for managing the flow of goods and information across the supply chain.

**CAHSS – College of Art, Humanities and Social Sciences**

**CAHSS- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**CHEM – Chemistry**

**CHEM- 501 Physical Chemistry Lecture (3.00 cr.)**

Repeatable: No

Fundamental physical chemistry; behavior of gases, liquid state, properties of solutions, principles of thermodynamics, thermochemistry. Taken concurrently with CHEM-503.

Recommended: CHEM-531.

*Recommended prerequisite: CHEM-531 Corequisite: CHEM-503*

**CHEM- 503 Physical Chemistry Laboratory (1.00 cr.)**

Repeatable: No

Lab course to be taken concurrently with CHEM-501. Experimental techniques and apparatus; treatment of experimental data.

Recommended: CHEM-531.

*Corequisite: CHEM-501*

**CHEM- 511 Biochemistry (4.00 cr.)**

Repeatable: No

Fundamental chemistry and metabolism of carbohydrates, lipids and proteins; second- and third-order structure of proteins; chemistry of nucleic acids; nature and dynamics of enzymes and enzyme action; biological oxidations; lab work in metabolism, chromatography, enzyme action, qualitative and quantitative analytical procedures.

**CHEM- 515 Food Chemistry (3.00 cr.)**

Repeatable: No

Organic biochemistry of foods: enzymatic and non-enzymatic changes associated with food preparation and storage (Maillard-Browning reaction), denaturation of protein, changes in color, odor, texture and nutritive value. Techniques for isolation and identification of biochemical constituents of foods.

**CHEM- 531 Quantitative Analysis (3.00 cr.)**

Repeatable: No

Introduction to the principles of quantitative chemical analysis and training in precision laboratory techniques.

**CHEM- 535 Instrumental Methods Of Analysis (3.00 cr.)**

Repeatable: No

Application of instrumental methods to chemical analysis: electrochemical, spectrophotometric, chromatographic, and thermal analysis. Techniques for methods development, sample preparation, optimization of operating conditions, and data analysis needed to obtain accurate, reproducible results by means of instrumentation.

**CHEM- 541 Chemistry Of Materials (4.00 cr.)**

Repeatable: No

Relationship of the chemistry and microstructure of structural materials (metals, polymers and ceramics) to their properties; degradation of those materials, corrosion of metals, polymers and ceramics.

**CHEM- 553 Environmental Chemistry (3.00 cr.)**

Repeatable: No

Principles and origins of chemical reactions that lead to ecological imbalance; systems that have contributed to large-scale environmental pollution or are of current importance; chemical technology needed to correct imbalance.

**CHEM- 652 Environmental Regulations Management (3.00 cr.)**

Repeatable: No

Laws governing environmental issues. Environmental regulations, applicability of the laws, and resources for interpreting the regulations. Evaluation of environmental research.

Instructor's consent

**CHEM- 770 Thesis - Industrial Hygiene (2.00 - 6.00 cr.)**

Repeatable: Yes

Independent research under direction of investigation advisor.

Selection of problem, review of literature, planning and conducting research, interpretation of findings, and preparation of final paper according to thesis standards. Students may enroll for two, four or six semester hours of credit in various terms for a final total of six.

Department consent

*Prerequisites: take EDUC-740 or INMGT-700*

**CMG – Cross-Media Graphics****CMG- 551 Cross-Media Personalization (3.00 cr.)**

Repeatable: No

Software, systems and processes used to plan and produce personalized and integrated cross-media (Web, print, e-mail, mobile, digital media) marketing/promotion campaigns. Databases, layout issues, dynamic content (text, images, charts and graphs), scripting, automation, variable data digital printing and personalization, through design platforms and web storefront interaction.

**CMG- 555 ePublishing (3.00 cr.)**

Repeatable: No

Techniques and processes for creating published digital media. Design considerations, file formats, digital asset and rights management, digital publishing standards and issues specific to long documents. Portable Document Format files, eBook formats and other standards for digital documents. Extensible Markup Language (XML) in print and digital media workflows.

**CMG- 562 Screen and Specialty Printing (3.00 cr.)**

Repeatable: No

Screen, and other specialty printing on a variety of substrates. Wide format, three-dimensional, lenticular, cut vinyl graphics, dye sublimation, pad printing, laser marking/engraving, issues and process-control concerns unique to these image transfer methods. Special course fee applies.

**CMG- 568 Print Optimization (3.00 cr.)**

Repeatable: No

The application of industry specifications to optimize print reproduction. Instrumentation, press fingerprinting and applied color management.

**CMG- 580 Cross-Media Estimating and Planning (3.00 cr.)**

Repeatable: No

Cross-media graphics workflow management issues including cost of production or services, estimating practices, planning and scheduling of both print and non-print graphic projects.

**CMG- 643 Cross-Media Practicum (3.00 cr.)**

Repeatable: Yes

Integration of all cross-media graphics processes in the design and production of print and non-print graphic products and services for clients in the university community. Special emphasis on the process and workflow management roles of estimating, customer service, scheduling, planning, production supervision and quality control.

Instructor's consent

**CMG- 645 Publication Production (3.00 cr.)**

Repeatable: No

Cross-discipline work teams experience integration of creative, technical and managerial skills to design, plan, schedule, produce and distribute print and digital versions of a publication.

Instructor's consent

**CMG- 682 Graphics Workflow Automation (3.00 cr.)**

Repeatable: No

Emerging trends in graphics workflow automation. Utilization of Job Definition Format (JDF) files to streamline digital workflow and integrate with production and management information systems. Asset management integration, file preflighting and repair, scripting, Web-to-Print integration, and workflow customization.

**CMG- 695 Cross-Media Seminar (3.00 cr.)**

Repeatable: Yes

Overview of the graphic communications industry; its size, market segments, profitability and organization. Research and analysis of company annual reports. Strategic planning, management and leadership, industry trends and forecasts, trade organizations, news and other information sources. Impact of technology, global issues, and competing information distribution channels.

**CNS – Cognitive Neuroscience****CNS- 681 Computational Cognitive Neuroscience (4.00 cr.)**

Repeatable: No

Basic principles of computational cognitive neuroscience. Simulating cognition using biologically based networks of neuron-like units (neural networks).

**COM – College of Management****COM- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**COUN – Counseling****COUN- 606 Peer Supervisory Experience (1.00 cr.)**

Repeatable: Yes

Experience in observation and feedback to peers undergoing counseling skill training.

Instructor's consent

**COUN- 647 Assessment And Treatment Of Eating Disorders (2.00 cr.)**

Repeatable: No

Description and diagnostic criteria for anorexia nervosa, bulimia nervosa, obesity, and compulsive overeating. Psychological, sociological, and familial influences on the development of the disorders. Assessment instruments, approaches, and treatment considerations.

**COUN- 694 Counseling Older Persons (2.00 - 3.00 cr.)**

Repeatable: No

Training service providers in counseling skills and gerontology through discussion, observation and supervised counseling experiences.

**COUN- 700 Seminar In Counseling (1.00 - 3.00 cr.)**

Repeatable: Yes

Special topics on current developments in the field. Each seminar is devoted to a specific development to be indicated with a subtitle and description.

**COUN- 715 Orientation to Clinical Mental Health Counseling (3.00 cr.)**

Repeatable: No

Professional, ethical, and legal issues in mental health and AODA counseling. National and Wisconsin credential standards for mental health and AODA counseling practice. Regional mental health and AODA practice settings. Public policy issues in mental health and AODA counseling.

*Must be accepted into the M.S. in Clinical Mental Health Counseling program*

**COUN- 719 Counseling Applications in Grief and Trauma (3.00 cr.)**

Repeatable: No

Clinical implications of significant personal loss by trauma, life transition, disease, disability and bereavement. Evidence-based approaches to grief counseling, the neurocognitive impact of trauma, and theoretically grounded approaches to trauma counseling. Emphasis will be on clinical skill integration in the context of grief and trauma.

**COUN- 720 Psychopharmacology (2.00 cr.)**

Repeatable: No

Overview of abused street and prescription drugs and the legitimate use of psycho-pharmaceutical medicine. Fundamental concepts of neuroanatomy and neurochemistry. Medications for the treatment of substance abuse disorders and chronic pain management. Signs and symptoms of drug toxicity, drug interactions and side effects. Crisis intervention strategies.

**COUN- 721 Alcohol And Drug Abuse Treatment Programs (3.00 cr.)**

Repeatable: No

Psychological factors in alcohol and drug abuse. Treatment

programs and approaches used by alcohol and drug abuse counselors.

**COUN- 722 Advanced topics In Compulsive Behavior Disorders (3.00 cr.)**

Repeatable: No

Psychology of shame and its relationship to substance abuse and other compulsive behaviors. Overview of prominent topics in compulsive behavioral disorders including substance abuse, gambling, eating, spending money, sex, internet, and other excessive and harmful behaviors. Advanced counseling skill development through psycho-education presentations and hypothetical problem solving. Ethical issues in counseling.

*Prerequisite: take COUN-721*

**COUN- 723 Psychopathology: Assessment And Treatment Planning (3.00 cr.)**

Repeatable: No

Training in the use of the current edition of the diagnostic and statistical manual (DSM) for assessment of mental disorders; use of behavioral and psychometric assessment procedures; treatment planning.

**COUN- 724 Adolescent Substance Abuse Counseling (2.00 cr.)**

Repeatable: No

Major adolescent developmental concepts, current trends, and culturally sensitive approaches in the assessment, prevention and treatment of adolescent substance abuse.

*Prerequisite: take COUN-721*

**COUN- 725 Social And Cultural Issues In Counseling (3.00 cr.)**

Repeatable: No

Major concepts, theoretical perspectives, professional issues, and skills of effective counseling related to such factors as culture, ethnicity, nationality, age, gender, sexual orientation, mental and physical characteristics, education, family values, religious and spiritual values, and socio-economic status.

**COUN- 727 Mindfulness Applications in Counseling (2.00 cr.)**

Repeatable: No

History and methods of mindfulness psychology. Research supporting mindfulness integration in counseling. Theories and techniques of current mindfulness-based counseling and psychotherapy. Experiential mindfulness exercises and practice.

**COUN- 735 Problems In Counseling (2.00 cr.)**

Repeatable: No

Plan B investigations are the primary purpose of this course. Students who are ready to write their Plan B paper should register for this course and then confer with the major adviser to select a staff member who will serve as an investigation adviser. Meetings with the adviser are by arrangement only.

*Prerequisites: take EDUC-740 or MFT-765*

**COUN- 745 Treating Personality Disorders (1.00 cr.)**

Repeatable: No

Diagnosis, assessment, and treatment of personality disorders as

defined in the current edition of the Diagnostic and Statistical Manual (DSM). Underlying belief systems associated with the various personality disorders. Therapeutic strategies useful in working with individuals with personality disorders.

*Prerequisite: take COUN-723*

**COUN- 749 Cooperative Education Experience** (1.00 - 6.00 cr.)

Repeatable: Yes

Work and study in an approved position to gain business/industry experience. Generally entails recurring, supervised work periods, each one building and expanding on the previous one.

Department consent

**COUN- 750 Counseling Theory** (3.00 cr.)

Repeatable: No

History and theories of counseling and psycho- therapy: psychoanalytic, humanistic/existential, cognitive/behavioral, family systems, feminist, and others. Underlying personality theory. Integration and eclecticism in counseling practice. Illustrative practical applications. Integration of counseling theory into a personal counseling style.

**COUN- 752 Group Dynamics** (3.00 cr.)

Repeatable: No

Theoretical and experiential understandings of group work, dynamics/development, and leadership approaches. Small group experience and supervised training in essential group leadership skills. Design and implementation of different types of groups for diverse populations in varied professional settings.

*Prerequisite or Corequisite: COUN-788*

**COUN- 754 Assessment and Clinical Interviewing in Counseling** (1.00 cr.)

Repeatable: No

Instruments and procedures used for the assessment of behavior relevant to and appropriate for mental health counseling. Emphasis on the selection, administration, interpretation, and application of major assessment instruments and procedures. Synthesis of assessment information into psychological reports.

*Prerequisite: take SPSY-753*

**COUN- 761 Counseling Children And Adolescents** (3.00 cr.)

Repeatable: No

Concepts and developmental approaches to counseling with children and adolescents. Integration of culturally responsive strategies, identification of at-risk behavior and prevention, and strategies to work with parents and families.

**COUN- 770 Thesis** (2.00 - 6.00 cr.)

Repeatable: Yes

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

*Prerequisites: take EDUC-740 or MFT-765*

**COUN- 775 Alcohol And Drug Abuse Counseling Practicum I** (8.00 cr.)

Repeatable: No

Counseling under supervision in an alcohol and drug abuse treatment facility. Laboratory instruction on various aspects of alcohol and drug abuse treatment approaches.

Department consent

*Prerequisites: take COUN-721 and COUN-788*

**COUN- 776 Alcohol And Drug Abuse Counseling Practicum II** (8.00 cr.)

Repeatable: No

A continuation of Alcohol and Drug Abuse Counseling Practicum I.

Students will continue a supervised counseling experience in an appropriate treatment facility and related laboratory instruction.

Department consent

*Prerequisite: take COUN-775*

**COUN- 788 Counseling Process Laboratory** (3.00 cr.)

Repeatable: No

Basic attending and influencing skills used in the one-to-one and one-to-group situations involving laboratory experiences, such as counseling, feedback, critiquing, modeling, assessing and evaluating.

*Prerequisite or Corequisite: COUN-750*

**COUN- 789 Cognitive-Behavioral Therapy: Principles And Application** (3.00 cr.)

Repeatable: No

Training in the theory and practice of cognitive- behavioral, and solution-focused treatment models. Assessment, intervention, and self-management strategies through this approach will be emphasized. Application of cognitive-behavioral techniques to human problems.

*Prerequisite: take COUN-750*

**COUN- 790 Supervision in Clinical Mental Health Counseling** (3.00 cr.)

Repeatable: No

Theory and practice of clinical and administration supervision in Mental Health Counseling venues. Supervision skill development and practice in laboratory setting.

*Prerequisite: take COUN-788*

**COUN- 793 Mental Health Counseling Practicum** (3.00 cr.)

Repeatable: No

Minimum of 150 hours of closely supervised counseling experience in an appropriate mental health setting. Regular seminars and individual supervision sessions required.

*Prerequisite: take COUN-788*

**COUN- 794 Mental Health Counseling Internship** (2.00 - 6.00 cr.)

Repeatable: Yes

Minimum of 200 hours of supervised experience in a mental health or AODA setting for two credits. Applied professional experiences, including individual, group, marriage and/or family counseling; intake interviewing; diagnosis; psychological testing; treatment planning; consultation and outreach; referrals; and/or



documentation. Repeatable to 6 credits (600 hours). *Prerequisite: take COUN-793*

**COUN- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**COUN- 892 Advanced Counseling Practicum** (2.00 cr.)

Repeatable: Yes

Clinical supervised counseling experiences in a variety of school institutional and agency settings. Designed to assist the student to more adequately understand and apply the dynamics of human behavior in the one-to-one counseling relationship. A minimum of 60 to 90 clock hours of experience is required.

*Prerequisite: take COUN-793*

**COUN- 895 Field Study** (2.00 - 6.00 cr.)

Repeatable: Yes

Experience in action-type field research in pupil personnel services. The student will identify and research a topic directly related to his career position. Preparation and presentation of a formal report of the study to appropriate personnel. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

## **CS – Computer Science**

**CS- 545 Image Processing** (3.00 cr.)

Repeatable: No

Theory and applications of digital image processing. Mathematical foundations and algorithms for enhancement, restoration, compression, segmentation and reconstruction from projections.

**CS- 546 Simulation Modeling And Analysis** (3.00 cr.)

Repeatable: No

Simulation as a problem-solving technique; models, analysis and languages for simulation; data collection; random variety generation; verification and validation; output analysis; optimization of systems.

**CS- 680 Introduction to Computer Security** (3.00 cr.)

Repeatable: No

Computer security problems and challenges, relationship between policy and security, cryptography, implementation of requirements imposed by policies, use of standards to ensure that the system will meet its goals, system vulnerabilities analysis and detection, intrusion detection, application of desired policy and procedures to support the policy.

**CS- 741 Computer Programming Techniques** (2.00 cr.)

Repeatable: No

Introduction to computer systems and their utilization. Emphasis on translating language with application to individual research projects, statistical or developmental. (Not available to students who have completed CS-141.)

**CS- 745 Data Mining** (3.00 cr.)

Repeatable: No

Fundamental concepts and methods in the field of data mining in order to discover meaningful patterns and knowledge from large datasets. Issues in data acquisition, integration, preprocessing, analysis and reporting. Hands-on examples from practical applications illustrating the concepts covered in the course.

**CS- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **CSTEM – College of Science, Technology, Engineering & Math**

**CSTEM- 590 Technical Service Schools** (0.50 - 6.00 cr.)

Repeatable: Yes

Some special-purpose technical courses offered by manufacturers are suitable for college credit. Guidelines: (1) Student makes all arrangements with manufacturer offering courses; (2) One credit is awarded for each full week (40 hours) of attendance; (3) Student enrolls and pays fees prior to taking course; (4) Approval of dean of CTEM needed before enrolling for credit; (5) Graduate School approval required for students taking course for graduate credit.

Department consent

**CSTEM- 701 Lean Seminar I: Principles Of Lean Manufacturing** (0.50 cr.)

Repeatable: No

Introduces a systematic approach to eliminating waste in manufacturing processes by use of the 5S approach to organization, reducing batch sizes, utilizing point of use storage, using pull systems, implementing cellular/flow, implementing quality at the source, and involving employees. Includes live simulations.

**CSTEM- 702 Lean Seminar II: Value Stream Mapping Manufacturing** (0.50 cr.)

Repeatable: No

Value Stream Mapping (VSM) is a method to visually depict material and information flow through an industrial operation. Principles and techniques of the VSM process, mapping the current state of a sample company, applying Lean concepts to develop an improved future state, and identifying steps needed to achieve that state.

*Prerequisite: take CSTEM-701*

**CSTEM- 703 Lean Seminar III: Principles Of Cellular/Flow Manufacturing** (0.50 cr.)

Repeatable: No

Use of Cellular/Flow Manufacturing in linking manual and machine operations into the most efficient combination of resources to maximize value added content, ensuring continuous product flows, and meeting customer demands, while minimizing waste.

*Prerequisite: take CSTEM-701*

**CSTEM- 704 Lean Seminar IV: The 5S System** (0.50 cr.)

Repeatable: No

Use of the principles of 5S system of manufacturing improvements (sort, set in order, shine, standardize, sustain) to develop a visual workplace that is organized, clean, and standardized and contains only what is required, enhancing the organization's communication and productivity.

*Prerequisite: take CSTEM-701*

**CSTEM- 705 Lean Seminar V: Quick Changeover/Setup Reduction** (0.50 cr.)

Repeatable: No

The principles of the Single Minute Exchange of Dies (SMED) system, a four-step changeover improvement process, are used to present techniques of designing no-cost/low-cost solutions to dramatically reduce or eliminate changeover time.

*Prerequisite: take CSTEM-701*

**CSTEM- 706 Lean Seminar VI: Total Productive Maintenance** (0.50 cr.)

Repeatable: No

Use of the Total Productive Maintenance (TPM) system of maximizing manufacturing equipment productivity. Utilization of Overall Equipment Effectiveness (OEE) to determine effective capacity of equipment. Development of effective, preventive, and predictive maintenance tools to reduce machine downtime and achieve autonomous maintenance.

*Prerequisite: take CSTEM-701*

**CSTEM- 707 Lean Seminar VII: VSM/Project Planning** (0.50 cr.)

Repeatable: No

The roles and expectations of a Value Stream Manager and the formation and leadership of a team to drive change in the organization. Individual project plans for Lean implementation projects are initiated.

*Prerequisite: CSTEM-701, CSTEM-702, CSTEM-703, CSTEM-704, CSTEM-705, CSTEM-706*

**CSTEM- 749 Cooperative Education Experience** (1.00 - 8.00 cr.)

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**CTE – Career & Technical Education**

**CTE- 501 Preservice Workshop For Career And Technical Educators** (1.00 cr.)

Repeatable: No

Introduction to the basic concepts of teaching courses in Wisconsin career, technical, and adult education.

**CTE- 502 Principles Of Career And Technical Education** (2.00 - 3.00 cr.)

Repeatable: No

Importance of career and technical education (workforce education)

to American society and the individual. Actively apply principles into practice. Formulate a philosophy of workforce education based on personally held principles and demonstrated practices.

**CTE- 510 Foundations Of Health Sciences Occupations Education** (3.00 cr.)

Repeatable: No

The philosophy, organization and administration of health science occupations education at the national, state and local level; includes current topics in health science occupations education with application for personnel in the field.

**CTE- 520 Careers In Health Care** (3.00 cr.)

Repeatable: No

Investigation of health care delivery system, services, occupations, related health services, and the health sciences career clusters.

**CTE- 530 Curriculum Planning In Health Science Occupations** (3.00 cr.)

Repeatable: No

Competency-based and individualized approaches to principles of curriculum and course construction, study of curriculum terminology, methods of selecting and organizing content for health science occupations educators.

**CTE- 534 Performance Analysis** (3.00 cr.)

Repeatable: No

Analysis techniques utilized in curriculum development. Emphasis on task analysis and related procedures. Includes occupational and needs analysis, competency identification, objective writing and information mapping. Integrates task analysis with a total system for developing and revising vocational curriculum or job training programs.

**CTE- 537 Competency-Based Education, Career And Technical** (2.00 cr.)

Repeatable: No

Competencies for career, technical and adult education programs and courses. Development of competency-based education performance indicators in all domains, a competency-based education management system, and basis for competency-based education evaluation.

**CTE- 546 Seminar** (1.00 - 3.00 cr.)

Repeatable: No

Current topics in career, technical and adult education with application for personnel in the field.  
Instructor's consent

**CTE- 559 Technology Impacts Occupational Programs** (4.00 cr.)

Repeatable: Yes

Presentation of latest technology in communications, manufacturing, construction, and/or transportation which involve concepts from math, science and computer science.

**CTE- 560 Coordination of Work-based Learning (WBL) Programs**  
(3.00 cr.)

Repeatable: No

Philosophy, planning, initiation, organization, coordination, evaluation, and teaching techniques of Cooperative Career and Technical Education (C-CTE) programs. Special emphasis on roles, responsibilities and duties of the cooperative teacher-coordinator.

**CTE- 575 Workshop** (1.00 - 3.00 cr.)

Repeatable: Yes

Special topics providing hands-on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

**CTE- 598 Field Experience** (1.00 - 2.00 cr.)

Repeatable: No

Department consent

**CTE- 605 Methods of Teaching Career and Technical Education**  
(2.00 - 3.00 cr.)

Repeatable: No

Competency-based and individualized approach to methods of teaching career and technical education.

*MS CTE students enroll for 2 credits.*

**CTE- 638 Course Construction in Career and Technical Education**  
(2.00 - 3.00 cr.)

Repeatable: No

Focus on curricula design principles and practices in Career and Technical Education (CTE). Content will challenge personally held ideas, assumptions, and practices related to curricula and its stakeholders. The products of learning include standards-based course, lesson, and assessment tools that are anchored to the mission, goals, and standards specific to the teacher-candidates' CTE program area.

*MS CTE students enroll for 2 credits.*

**CTE- 640 Instructional Evaluation In Career And Technical Education** (2.00 - 3.00 cr.)

Repeatable: No

Competency-based and individualized approach to instructional evaluation for career and technical educators.

*MS CTE students enroll for 2 credits.*

**CTE- 674 Adult Education** (2.00 cr.)

Repeatable: No

Philosophy and history of adult education in the United States. Techniques for teaching adults: psychological factors, methods, adult interests and characteristics.

**CTE- 708 Issues In Career And Technical Education** (2.00 cr.)

Repeatable: No

An in-depth study of contemporary issues affecting career, technical and adult education. Possible solutions or alternatives will be proposed.

**CTE- 710 Coordination And Supervision Of Career And Technical Education** (2.00 cr.)

Repeatable: No

Principles of coordination/supervision in career, technical and adult education. The coordinator/supervisory positions and their functional relationship to the career and technical education system.

**CTE- 720 Policy and Legal Issues in Career and Technical Education**  
(2.00 cr.)

Repeatable: No

Contemporary legal and policy issues affecting secondary and postsecondary career and technical education.

**CTE- 725 Quality Improvement in Education** (3.00 cr.)

Repeatable: No

Systematic and strategic approaches to improving educational processes by applying and implementing quality improvement techniques.

**CTE- 735 Problems In Career And Technical Education** (2.00 cr.)

Repeatable: No

Identification, selection, and completion of a problem in career and technical education culminating in a Plan B paper.

**CTE- 737 Competency-Based Education--Career And Technical** (2.00 cr.)

Repeatable: No

Competencies for career, technical and adult education programs and courses. Development of competency-based education performance indicators in all domains, a competency-based education management system, and basis for competency-based education evaluation.

**CTE- 746 Seminar** (1.00 - 3.00 cr.)

Repeatable: No

Special topics on current developments in the field. Each seminar devoted to a specific development to be indicated with sub-title and description.

**CTE- 770 Thesis--Career And Technical Education** (2.00 - 6.00 cr.)

Repeatable: No

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, plan of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

**CTE- 775 Workshop** (1.00 - 3.00 cr.)

Repeatable: Yes

Special topics providing hands-on experiential learning activities. Specific content and title to reflect the topic of the workshop.

**CTE- 780 Internship, Career And Technical Education** (4.00 - 8.00 cr.)

Repeatable: No

A planned, supervised experience for M.S. or Ed.S. candidates. To be completed at selected locations capable of providing appropriate experiences.  
Department consent

**CTE- 784 Internship--Local Vocational Education Coordinator (4.00 - 8.00 cr.)**

Repeatable: No

Supervised field practice in local career and technical education coordination to be completed at selected schools or CESA agencies capable of providing appropriate experiences.

Department consent

**CTE- 797 Field Experience (1.00 cr.)**

Repeatable: No

Department consent

**CTE- 798 Field Experience (1.00 - 2.00 cr.)**

Repeatable: No

Department consent

**CTE- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**CTE- 895 Field Study in Career and Technical Education (6.00 cr.)**

Repeatable: No

Supervised research study; investigate and develop in-depth the body of knowledge associated with selected problem in CTE.

Includes review of literature, data analysis, conclusions and recommendations, dissemination plan.

*Prerequisite: EDUC-816; must be enrolled in EdS in CTE*

**CTE- 899 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**CTE- 901 Introduction to the Ed.D. in Career and Technical Education (2.00 cr.)**

Repeatable: No

Introduction to cohort and learning communities; development of program plan, goals, and research agenda for the Ed.D. in CTE program.

*Must be enrolled in the EdD CTE program*

**CTE- 902 Philosophy and Practice of Career and Technical Education (3.00 cr.)**

Repeatable: No

The history and development of career and technical education with emphasis on the philosophical bases of the field. Examines the impact of external forces and educational agencies on the organization and administration of programs. Development of a personal philosophy is required.

*Must be enrolled in the EdD CTE program*

**CTE- 903 Educational Leadership in Career and Technical Education (3.00 cr.)**

Repeatable: No

Leadership for planning, facilities and support services management, supervision of instruction, professional development, and assessment in career and technical education. Analysis and development of skills relative to leading an organization including campus/school planning, entrepreneurship, the business of education and selling an idea.

*Must be enrolled in the EdD CTE program*

**CTE- 904 Social and Economic Issues in Career & Technical Education (3.00 cr.)**

Repeatable: No

Exploration of the major social, economic, and political issues and trends expected to have continuing impacts on career and technical education and the workforce. The current status and philosophies of career and technical education are evaluated relative to these changes. Alternative directions for the future are identified and analyzed, with emphasis on proactive rather than reactive strategies for educators.

*Must be enrolled in the EdD CTE program*

**CTE- 905 CTE Curriculum Systems (3.00 cr.)**

Repeatable: No

Study and application of learning theory and philosophy to the planning, design, and development of secondary and postsecondary career and technical education programs and curriculum.

*Must be enrolled in the EdD CTE program*

**CTE- 906 Applied Statistical Analysis for Education (3.00 cr.)**

Repeatable: No

Knowledge, concepts, applications, interpretations and reporting of basic and practical statistical procedures related to educational problems. Applications of descriptive statistics, probability-sampling distributions, inferential statistics, interval estimation and tests of significance.

*Must be enrolled in the EdD CTE program*

**CTE- 911 Comparative Systems in CTE (3.00 cr.)**

Repeatable: No

Exploration and analysis of CTE practices and philosophies across the world, within regions, and the structures used to deliver work- and career-related education/training.

*Must be enrolled in the EdD CTE program*

**CTE- 912 Education Policy and Leadership (3.00 cr.)**

Repeatable: No

Influence of federal and state policy and leadership within the context of career and technical education. Research and examine CTE policy and leadership. Nature of political action in each of these arenas with attention to location/geography, PK12 and postsecondary career and technical education.

**CTE- 913 Program Planning, Development and Evaluation (3.00 cr.)**

Repeatable: No

Application of research theory, CTE philosophy and practice relative

to program planning, development and evaluation. Emphasis on the development and delivery in an efficient and effective manner, utilizing data and research when making program decisions.

*Must be enrolled in the EdD CTE program*

**CTE- 914 Research Seminar (2.00 cr.)**

Repeatable: No

Concepts and application in conducting doctoral level educational research. Emphasis on various data collection and analysis techniques. Research methods, designs, and data gathering tools to best approach a problem to investigate, meet their research objectives, and operate within the constraints of the research problem.

*Must be enrolled in the EdD CTE program*

**CTE- 915 Quantitative Research Methods (3.00 cr.)**

Repeatable: No

Processes and applications of quantitative research in educational-based disciplines. Common quantitative research methods, research types, study designs, basic statistics and reporting techniques used in the behavioral sciences. Develop proficiency in the design, development, and analysis of research using quantitative methodology.

*Must be enrolled in the EdD CTE program*

**CTE- 921 Qualitative and Mixed Research Methods (3.00 cr.)**

Repeatable: No

Design, development and analysis of research utilizing qualitative methodology (theory, models, measurement, sampling and analysis). In addition, mixed methodology research strategies will be addressed.

*Must be enrolled in the EdD CTE program*

**CTE- 922 Strategic Planning and Administration in CTE (3.00 cr.)**

Repeatable: No

The role and process of strategic planning that incorporates working with internal and external stakeholders, data analysis, and short and long range planning. Application of leadership theory, analysis, and strategy to develop and lead the strategic planning process.

*Must be enrolled in the EdD CTE program*

**CTE- 995 CTE Dissertation (3.00 - 6.00 cr.)**

Repeatable: Yes

Guided research under direction of investigation adviser and research committee. Identification and selection of problem, review of literature, selection of research methodology, conduct research, interpretation and analysis of findings, and recommendations and conclusions. Requires research proposal presentation (preliminary examination) and final defense presentation.

Instructor's consent

*Must be enrolled in the EdD CTE program*

**DES – Design**

**DES- 508 Lighting Design In The Built Environment (3.00 cr.)**

Repeatable: Yes

Exploration and application of professional lighting design practice within the built environment including psychological and physiological aspects of artificial and natural light, effects of color, directional effects, materials, design process, aesthetics, codes, energy conservation, and sustainability.

Department consent

**DES- 521 Digital Imagery Studio (3.00 cr.)**

Repeatable: Yes

A studio workshop experience in digital painting, photo illustration and image compositing using digital tools. Advanced topics and projects rotate.

Instructor's consent

**DES- 572 3D Modeling and Animation I (3.00 cr.)**

Repeatable: No

Introduction to 3D digital modeling, animation, texturing, lighting, and rendering techniques. Using digital design elements and visual aesthetics, students create 3D digital imagery and animations.

Instructor's consent

**DES- 573 3D Modeling & Animation III (3.00 cr.)**

Repeatable: Yes

Advanced studio course in which 3D digital expertise is developed through directed and collaborative research. Students specialize in one of the following 3D digital fields: modeling, animation, texturing, lighting and rendering, or visual effects. Repeatable: topics and projects rotate each semester.

Instructor's consent

**DES- 574 3D Modeling & Animation II (3.00 cr.)**

Repeatable: No

Intermediate 3D digital design through directed and collaborative research and practice. Students create robust 3D digital imagery and animations using digital design elements and visual aesthetics.

Instructor's consent

**DES- 575 Digital Cinema Studio (3.00 cr.)**

Repeatable: Yes

Techniques, topics and projects for digital cinema. Emphasis on creative direction, aesthetics, content and narrative development. Advanced students work individually and in teams to produce and critically examine self-directed projects. Advanced topics and projects rotate each semester.

Instructor's consent

**DES- 578 Animation Studio (3.00 cr.)**

Repeatable: Yes

Animation techniques, topics and projects. Course provides an introduction to 2D and s-motion animation techniques. Advanced students work individually and in teams to produce and critically examine self-directed projects. Specific topics and projects rotate each semester. Repeatable.

Instructor's consent

**DES- 579 Comics & Sequential Art Studio (3.00 cr.)**

Repeatable: Yes

Techniques, topics and projects. Introduction to the art and craft of combining words and illustrated pictures to create narrative works. Advanced students work individually and in teams to produce and critically examine self-directed projects. Advanced topics and projects rotate each semester. Repeatable.  
Instructor's consent

**DES- 580 Signage and Exhibition Design (3.00 cr.)**

Repeatable: Yes

Organization and design of environmental graphics through the production of signage, display, and exhibition support systems.  
Instructor's consent

**DES- 585 Interactive Digital Design III: Advanced Concepts (3.00 cr.)**

Repeatable: No

Advanced design and development of human-computer interfaces.  
Instructor's consent

**DES- 586 Publication Design (3.00 cr.)**

Repeatable: No

Graphic design principles as applied to the combination and coordination of art and typography with text.

**DES- 605 Advanced Design Drawing (0 cr.)**

Repeatable: Yes

In-depth study of illustration and presentation styles within various design contexts. Development of drawing skills in traditional and digital media, emphasizing perspective, form, and texture. Emphasis on rapid freehand, conceptual drawing as a means to imagine and develop design concepts.  
Department consent

**DES- 616 Interior Design Senior Studio (4.00 cr.)**

Repeatable: Yes

Exploration of advanced interior design topics, including sustainability, through an extensive project(s) to include all phases of current interior design professional practice and incorporation into students portfolio.  
Department consent

**DES- 631 ID5: Industrial Design Senior Studio I (3.00 cr.)**

Repeatable: Yes

Exploration of advanced industrial design topics through extensive projects with consideration given to contextual and environmental issues. Topics and projects rotate each semester.  
Department consent

**DES- 632 ID6: Industrial Design Senior Studio II (3.00 cr.)**

Repeatable: Yes

Execution of advanced industrial design projects through all phases of current industrial design process.  
Department consent

**DES- 700 Design Seminar I (3.00 cr.)**

Repeatable: No

Introduction to design practice, research, methodology and processes with a focus on establishing graduate work trajectory.

**DES- 710 Ethics in Design (3.00 cr.)**

Repeatable: No

Ethics related to professional design practice and creative scholarship.  
Instructor's consent

**DES- 712 Sustainable Design Practice (3.00 cr.)**

Repeatable: No

Advanced exploration and evaluation of current environmental design standards, business practices, and materials as they apply to sustainable design.

**DES- 730 Critical Issues in Design Education and Practice (3.00 cr.)**

Repeatable: No

Overview of professional design issues in higher education, industry, and the broader community.

Department consent

*Must be enrolled in the MFA in Design*

**DES- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**DES- 800 Design Seminar II (3.00 cr.)**

Repeatable: No

Directed exploration through formative stages of design thesis development, identification of research adviser and thesis committee, culminating in formal thesis proposal and presentation for approval of thesis. Should be taken one, no more than two, terms prior to registering for design thesis.

Department consent

*Prerequisites: take DES-700, DES-725, DES-730; must be enrolled in MFA Design*

**DES- 870 Creative Thesis in Design (3.00 - 6.00 cr.)**

Repeatable: Yes

Independent design research project production and implementation under direction of primary research adviser and committee. Requires final presentation to thesis committee, public dissemination (i.e., exhibition, lecture), and completion of a written Master's report describing, framing, illustrating, and supporting the design work.

Department consent

*Prerequisites: take DES-800; must be enrolled in MFA Design*

## **ECE – Early Childhood Education**

**ECE- 613 Lang Arts/Reading I: Birth-K (3.00 cr.)**

Repeatable: No

Developmentally appropriate strategies and materials for planning, implementing, and evaluating language arts. Emphasis on developing emergent literacy skills and language arts with children Birth through Kindergarten.

**ECE- 626 Advanced Classroom Management And Guidance (3.00 cr.)**

Repeatable: No

Advanced study of managing early childhood classrooms. Management of the physical environment, instructional context, including large and small groups, and social context. Building a classroom community and encouraging collaborative learning. Assessing management of early childhood classrooms. Analysis of classroom management programs. Observation/participation in early childhood classrooms required.

*Prerequisite: take ECE-524*

**ECE- 635 Children, Families, Schools And Communities (3.00 cr.)**

Repeatable: No

Building family, school, and community partnerships to support children's wellbeing and educational success. Theories and processes used to establish positive home-school-community relations.

**ECE- 664 Special topics In Early Childhood Curriculum (1.00 - 3.00 cr.)**

Repeatable: Yes

Philosophy and methodology of early childhood education: problems confronting teachers.

## **EDPSY – Educational Psychology**

**OEDPSY- 730 Advanced Psychology Of Learning for Instruction (2.00 cr.)**

Repeatable: No

Theories of learning with applications and implications to the learning environment. Biological bases and psychoeducational models with an examination of instruction and the learning conditions and strategies that promote the acquisition and transfer of knowledge in children, adolescents, and adults.

**EDPSY- 850 Psychology Of Development (3.00 cr.)**

Repeatable: No

Study of issues and methods in developmental psychology. Perceptual, language, cognitive, social, emotional, and personality development research and theories. Examination of biological underpinnings, interactive effects of biology and the environment on growth and learning from prenatal development to adulthood.

## **EDUC – Education**

**EDUC- 503 Educational Psychology (3.00 cr.)**

Repeatable: No

Psychological aspects of learning, teaching, and assessment processes within educational contexts. Focus on the principles of learning and cognition, human development, individual and group differences, teaching and assessment processes.

**EDUC- 504 Secondary Curriculum Methods and Assessment (2.00 cr.)**

Repeatable: No

Discipline-specific curriculum, methods, and assessment procedures for teaching content minors. *Prerequisite: Benchmark I completion*

**EDUC- 507 Racial and Cultural Perspectives on Applied Human Relations (3.00 cr.)**

Repeatable: No

Major themes on how race and ethnicity shape personal and interpersonal relationships.

**EDUC- 509 Methods, Materials, and Management for Middle Childhood Education (3.00 cr.)**

Repeatable: No

Focus on developmentally appropriate teaching practices in elementary classrooms (grades 4-6). Program models; learning environments; local, state, and national standards; assessment techniques; instructional approaches, and lesson planning for elementary students. Students must hold license #70 and have passed the Praxis 2 exam.

Instructor's consent

**EDUC- 510 Middle Childhood Education Teaching Science (2.00 cr.)**

Repeatable: No

Curriculum, methods, and assessment in middle childhood science teaching for children ages 9 through 11. Knowledge and performances in the areas of planning, classroom management, instruction, and professional responsibilities for reflection, communication are the focus. Students must hold license #70 and have passed the Praxis 2 exam.

Instructor's consent

**EDUC- 511 Middle Childhood: Curriculum and Methods for Teaching Math (2.00 cr.)**

Repeatable: No

Methods and materials for assessing, planning, implementing and evaluating mathematics curricula for elementary classrooms (grades 4-6). Emphasis is placed on: 1) utilizing process skills, 2) fostering content knowledge in the mathematical areas, 3) assessment, 4) mathematical content instruction, and 5) building positive attitudes for the mathematical classroom. Students will continue to develop skills in the classroom environment while maintaining professional responsibilities for teaching at the elementary level. Students must hold license #70 and have passed the Praxis 2 exam.

Instructor's consent

**EDUC- 512 Middle Childhood: Curriculum and Methods for Social Studies (2.00 cr.)**

Repeatable: No

Methods and materials for assessing, planning, implementing and evaluating social studies curricula for elementary classrooms (grades 4-6). Emphasis is placed on: 1) utilizing development skills, 2) fostering content knowledge in the content of social studies, 3) assessment, 4) social studies content instruction, and 5) building positive attitudes for the teaching of social studies in the classroom. Develop skills in the classroom environment and maintain professional responsibilities for teaching at the elementary level. Students must hold WI teaching license #70 and have passed the



Praxis 2 exam.  
Instructor's consent

**EDUC- 514 Student Teaching in Elementary Grades** (4.00 - 8.00 cr.)

Repeatable: No

Full-day student teaching at the elementary level (grades 4-6) in a public school setting. Middle childhood student teaching experience follows the public school district calendar. Grad students must hold license #70 to register.

**EDUC- 530 Multiculturalism: Dialogue and Field Experience** (3.00 cr.)

Repeatable: No

Intensive examination of multiculturalism in the U.S. and global schools and communities: the educational and cultural needs of diverse social groups, discussion of hegemony, cultural, racial, socioeconomic, political, gender, LGBT, and language barriers to equal educational and economic opportunity. Field experience. Strategies for educational and socioeconomic equity. *Prerequisite: Background check required.*

**EDUC- 536 Multiculturalism: Issues & Perspectives** (2.00 cr.)

Repeatable: No

Intensive study of diversity in U.S. schools. Examination of the educational needs of students from various ethnic, cultural, religious, language and social class groups. Discussion of issues related to racism, sexism and oppression.

**EDUC- 576 Cross-Cultural Field Experience** (1.00 cr.)

Repeatable: No

Supervised field experience in an educational setting with diverse learners to increase awareness, understanding, sensitivity, and appreciation for ethnic and cultural diversity. The acquisition of knowledge, skills, and professional dispositions necessary for educators to facilitate learning for all students are emphasized.

**EDUC- 580 Reading And Language Arts In Elementary Education** (3.00 cr.)

Repeatable: No

Current philosophies in reading and language arts education, the centrality of language arts to the elementary curriculum and methodologies for the elementary classroom.

**EDUC- 581 Preclinical: Elementary Ed Language Arts And Reading** (1.00 cr.)

Repeatable: No

Supervised teaching experience in developing the prospective teacher's ability in elementary education language arts and reading skills.

**EDUC- 600 Workshop: Special topics In Education** (1.00 - 3.00 cr.)

Repeatable: Yes

Current specialized topics studied through experimental activities.

**EDUC- 601 Global Education Practicum** (3.00 cr.)

Repeatable: No

Experiential learning opportunity to provide student with in-depth study of one or more of the global education sub-groups: human rights and social justice, human commonality and diversity, population demographics, planet management, global belief systems, economic systems, conflict and control, political systems, science and technology and/or sustainable development.

**EDUC- 602 Global Perspectives For Educators** (3.00 cr.)

Repeatable: No

Strategies for infusing global perspectives into the classroom for those working in globalized organizations. Methodology, materials and instructional strategies necessary for effective implementation of global education in schools and individual classrooms as well as within global organizations. topics/issues related to globalization to develop a foundation from which teachers and other leaders in organizations can draw ideas for their specific needs.

**EDUC- 603 Educational Psychology Of The Adult Learner** (2.00 cr.)

Repeatable: No

Psychological principles and theoretical framework guiding the educational process for adult learners. Special focus on planning and evaluating instruction while utilizing active learning to build strong learning communities.

**EDUC- 615 Classroom Management** (2.00 - 3.00 cr.)

Repeatable: No

Technique and theory for motivating PreK-grade 12 age students to manage their own behaviors, including preventive discipline, behavior management, classroom environment, classroom climate, effective communication, conflict resolution, and peer mediation.

**EDUC- 616 Conflict Resolution And Crisis Management For Educators** (2.00 cr.)

Repeatable: No

Conflict mediation and crisis intervention strategies in school settings.

**EDUC- 630 Ojibwe Lifeways** (2.00 - 4.00 cr.)

Repeatable: No

In depth, interactive study of Ojibwe culture within a Wisconsin reservation community. A special course fee applies.

**EDUC- 640 Poverty in the Schools** (2.00 cr.)

Repeatable: No

Characteristics and issues facing students from economically disadvantaged backgrounds. Traits of high-performing, high-poverty schools with emphasis on strategies to reduce the achievement gap and build community partnerships. Intended for teachers in the field.

**EDUC- 641 Mobile Learning Instructional Design** (3.00 cr.)

Repeatable: No

Mobile learning research, trends, instructional design strategies for curriculum integration and professional development.

**EDUC- 642 Teaching Digital Media Literacy in the Content Areas** (2.00 cr.)

Repeatable: No

Research-based strategies for analyzing, critiquing and engaging with digital text, video, images and diverse multimedia primary sources in the PK-12 classroom to stimulate inquiry, creativity and critical thinking.

**EDUC- 643 Differentiated Instruction** (3.00 cr.)

Repeatable: No

Research-based instructional methods to meet the varied needs of all learners in today's classrooms, including English language learners, students with a variety of learning styles and abilities and interests. Alternative assessment methods and strategies to manage a differentiated instructional setting.

**EDUC- 645 School-wide Positive Behavioral and Intervention Support** (3.00 cr.)

Repeatable: No

Principles of school-wide positive behavioral interventions and supports (PBIS). Roles and functions of the PBIS team, action planning for sustainable practices, data collection systems and tools, and data analysis for planning three-level interventions and monitoring progress.

**EDUC- 646 Using Games for Learning and Assessment** (1.00 cr.)

Repeatable: No

Integration of interactive games and simulations with the curriculum, implications for effective assessment. Use of games to support collaboration, problem solving, decision making, and to increase motivation and engagement in the classroom, including benefits and drawbacks.

**EDUC- 647 Teaching Students with Autism in the Inclusive Classroom** (3.00 cr.)

Repeatable: No

Strategies to address the varied social and academic needs of students with Autism Spectrum Disorders in the inclusive classroom; functional behavior assessment and behavior intervention plans, educational interventions, and technology considerations.

**EDUC- 648 Math Assessment for Response to Intervention** (2.00 cr.)

Repeatable: No

Principles of using universal screeners and curriculum-based measures (CBMs) to assess student performance in mathematics. Use of assessment tools in mathematics to identify learning problems, to monitor student growth, and implement Response to Intervention (RTI) practices.

**EDUC- 650 Integrating Social Media Instructional Strategies** (1.00 cr.)

Repeatable: No

Social media instructional strategies for professional development, global collaborative initiatives, learning-community development and collaborations. Digital citizenship and learning outcomes and assessment using social media.

**EDUC- 651 Project-based Learning in the Flipped Classroom** (2.00 cr.)

Repeatable: No

Instructional strategies for design, management, and assessment of standards-focused, project-based learning (PBL) in the flipped classroom. Use of multimedia and online resources to support collaboration and increase learner motivation and engagement.

**EDUC- 652 Universal Design for Learning** (2.00 cr.)

Repeatable: No

Instructional design strategies that support a wide range of learner differences; create barrier-free learning by applying universal design concepts.

**EDUC- 653 Middle School Through Adult 6-Traits Writing Instruction** (3.00 cr.)

Repeatable: No

Concepts, instructional methods and assessment strategies for improving writing instruction, middle school through post-secondary. Self-assessment strategies, application of 6-traits, technology and software applications, and writing across the curriculum.

**EDUC- 654 PK Through Elementary 6-Traits Writing Instruction** (3.00 cr.)

Repeatable: No

Application of the 6-Traits theory to assessment and instruction of student writing in PK through grade 4. Study of the continuum of primary and elementary language arts skills and writing across the curriculum.

**EDUC- 655 Strategies for Dealing with Disruptive Behavior** (3.00 cr.)

Repeatable: No

Evidence-based preventive strategies, effective interventions, and classroom management strategies for addressing problem behaviors, chronic noncompliance and intermittent disruptive conduct.

**EDUC- 656 Bullying In Schools** (2.00 cr.)

Repeatable: No

Issues, educational interventions and instructional strategies for creating a safe learning environment to break the cycle of bullying and cyberbullying.

**EDUC- 657 Effective Classroom Management** (2.00 cr.)

Repeatable: No

Research-based strategies for effective management of the K-12 classroom including organization of time, physical space, curriculum, instruction, and assessment to minimize and prevent classroom management problems and create a classroom culture that supports cooperative learning.

**EDUC- 658 Issues in STEM Education** (3.00 cr.)

Repeatable: No

Issues related to science, technology, engineering and mathematics (STEM) education; research-based instructional strategies for

engaging diverse learners, and career pathways in STEM-related fields.

**EDUC- 659 Methods of Teaching Middle School Math** (3.00 cr.)

Repeatable: No

Research, issues and problems related to current reform in teaching middle school mathematics, including planning curriculum, assessing student learning, managing instruction, and providing for individual needs.

**EDUC- 713 Middle Childhood: Teaching Reading/ Language Arts** (2.00 cr.)

Repeatable: No

Curriculum, methods and assessment in middle childhood reading/language arts teaching for children ages 9 through 11. Knowledge and performance in planning, classroom management, instruction and professional responsibilities of reflection and communication.

Instructor's consent

**EDUC- 720 Linguistics and Cultural Immersion in Schools** (3.00 cr.)

Repeatable: No

Core problems in service delivery to English Language Learner children, youth, and their families. Contemporary issues and theories related to the impact of cultural and linguistic diversity on the cognitive, social, and emotional development of children.

**EDUC- 723 Impacting Communities through Service Learning** (1.00 - 3.00 cr.)

Repeatable: No

Partnership with community agencies for civic engagement with under-served and underrepresented populations. Communication and relationship skills; personal leadership exploration within the context of civic engagement; issues and skills relevant to future service providers.

**EDUC- 726 Administration** (2.00 - 3.00 cr.)

Repeatable: No

Philosophy and principles underlying organization and operation of public education on the local, state and national levels in the United States. Examinations of prevailing practices and current problems of school management.

**EDUC- 727 Supervision Of Student Teachers** (2.00 cr.)

Repeatable: No

On-line, interactive course that examines the role of the cooperating school and teacher in orienting, guiding and assessing student/intern teachers.

Department consent

**EDUC- 729 Introduction To Educational Research** (1.00 cr.)

Repeatable: No

Overview of educational research; identification of research topics and development of a research proposal.

**EDUC- 735 Problems In Education** (2.00 cr.)

Repeatable: No

Identification, selection and completion of a research problem in education culminating in a Plan B research paper.

*Prerequisites: take either EDUC-740, EDUC-741 or EDUC-742*

**EDUC- 740 Research Foundations** (4.00 cr.)

Repeatable: No

This course serves as an introduction to basic concepts and principles in educational research. The course utilizes mastery grading and elements of individualized instruction. The course functions to help prepare the student for his own graduate research experiences and also to prepare him to be an articulate consumer of research upon completion of the course.

**EDUC- 741 Education Grant Proposal Development** (3.00 cr.)

Repeatable: No

Principles of grant proposal writing to support educational research needs.

*Prerequisite: take either EDUC-729 or TECED-739*

**EDUC- 742 Program Evaluation** (3.00 cr.)

Repeatable: No

Surveys theory and practice of evaluating the effectiveness of a variety of human-service delivering systems, including education. Develops applied competencies in analyzing values and needs of decision makers and articulation and assessment of program objectives (both process and product). Emphasis on building efficient, ongoing evaluation systems.

**EDUC- 744 Seminar** (1.00-3.00 cr.)

Repeatable: Yes

**EDUC- 745 Assessment for Learning** (3.00 cr.)

Repeatable: No

Assessment for instructional decision making. Historical perspectives, trends, current research, methods and purposes of assessing learners. Principles and appropriate techniques used in assessing learners. Applied practice in using formative assessment strategies to examine the effects of instruction on learning. Role of assessment of student learning in professional development planning.

**EDUC- 750 Curriculum Theory And Practice** (2.00 - 3.00 cr.)

Repeatable: No

A study of curriculum theory and its application. An analysis and development of a rationale, writing educational objectives, identifying a body of knowledge, specifying methodology, and conducting curriculum evaluation.

**EDUC- 760 E-Learning For Educators** (3.00 cr.)

Repeatable: No

Historical background and current trends in online learning. Concepts and foundations of best practices for successful teaching online. E-learning theory, principles, learning management systems, and web-based technology tools.

**EDUC- 761 Creating Collaborative Communities In E-Learning (3.00 cr.)**

Repeatable: No

Concepts, methods and research for creating and facilitating a collaborative online community of practice. Dynamics of facilitated synchronous and asynchronous discussion, questioning skills, conflict resolution, netiquette, and collaborative learning through problem-based scenarios, simulations, and hands-on practice moderating online discussions.

**EDUC- 762 Assessment In E-Learning (3.00 cr.)**

Repeatable: No

Performance-based assessment. Summative and formative feedback methods to assess student learning in the online classroom. Best practices for grading procedures, prevention of plagiarism in the digital environment, electronic evaluation tools, using electronic record-keeping systems and methods for evaluating e-portfolios, posted discussions, and group projects.

**EDUC- 763 Instructional Design For E-Learning (3.00 cr.)**

Repeatable: No

Evaluation, discussion and application of instructional design theories and principles for online learning. Examination of hybrid, self-paced and facilitated online learning experiences delivered via course management systems. Scenario-based simulations and case study analysis. Creating interactive multimedia learning objects. Application of accessibility and usability guidelines in web-based course design.

**EDUC- 764 E-Learning Practicum (3.00 cr.)**

Repeatable: No

Practicum in teaching online with a cooperating online instructor. Application of online pedagogy and technology evaluated through observation, discussion and reflections. Completion of a professional development plan and an e-portfolio of evidence of attainment of online learning standards.  
Instructor's consent

*Prerequisites: take EDUC-760, EDUC-761, EDUC-762, and EDUC-763*

**EDUC- 765 Trends and Issues in Instructional Design (3.00 cr.)**

Repeatable: No

In-depth comparison of current instructional design theories and models, principles of adult learning, variables that affect adult learning, techniques for stimulating and sustaining learner motivation, reinforcement of learning, skill transfer, and use of cognitive task analysis to determine instructional content.

**EDUC- 766 Instructional Strategies and Assessment Methods (3.00 cr.)**

Repeatable: No

Development of instructional goals, objectives and assessment of outcomes. Methods for assessing learning performance and mapping appropriate assessment methods to instructional strategies and learning objectives. Performance-based assessment and evaluation tools to assess learner performance. Design of formative and summative evaluation methods.

*Prerequisite: take EDUC-765*

**EDUC- 767 Designing Computer-Based Training (CBT) (3.00 cr.)**

Repeatable: No

Just-in-time scenario-based modular development, user interface design, visual design, usability testing, and execution of common instructional strategies employed in self-paced products. Research, trends and standards in computer-based training; development of reusable learning objects using multimedia software.

*Prerequisite: take EDUC-766*

**EDUC- 768 Project Management for Instructional Development (3.00 cr.)**

Repeatable: No

Examination of the initiation, planning, and closure of instructional development projects and practical knowledge on managing project scope, work breakdown structure, schedules, and resources including budgeting. Analysis of instructional development project life cycle.

*Prerequisites: take EDUC-767*

**EDUC- 770 Thesis (2.00 - 6.00 cr.)**

Repeatable: Yes

Independent research under direction of investigation adviser. Selection of problem, review of literature, planning and conducting research, interpretation of findings and preparation of final paper according to thesis standards. Student may enroll for two, four or six semester hours of credit in various terms for a final total of six.

*Prerequisite: take EDUC-740*

**EDUC- 780 Action Research (4.00 cr.)**

Repeatable: No

Action research as a tool for instructional decision making. Historical perspectives, trends, current research, methods and purposes of action research. Principles and appropriate techniques used in conducting action research. Field-based practice in using action research to examine the effects of instruction on learning.

*Prerequisite: take EDUC-745*

**EDUC- 782 Instructional Analysis (4.00 cr.)**

Repeatable: No

Social/political forces utilized in planning and implementing instruction. Principles and strategies for a self-analysis of teaching behavior. Examination of the social aspects of teacher learning and knowledge production and the relationships between learning and instruction.

**EDUC- 790 Professional Portfolio Development (2.00 cr.)**

Repeatable: No

Principles of professional portfolio development for educators.

*Prerequisite: take EDUC-729*

**EDUC- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**EDUC- 816 Instrumentation For Research (3.00 cr.)**

Repeatable: No

Basic concepts in the areas of validity and reliability as applied to the

design of instruments as applied to a student's proposed field study. Techniques of item writing, item analysis, determining reliability, and scaling, including acquiescent set, item difficulty and discrimination.

**EDUC- 895 Field Study In Professional Education** (2.00 - 6.00 cr.)

Repeatable: Yes

Supervised study which provides the graduate student with the opportunity to: (1) explore in-depth the body of knowledge associated with a selected problem in professional education, (2) provide an educational experience for implementing this knowledge into a selected institutional setting, and (3) devise methods to determine if the implementation is or will be successful.

## **ELEC – Electricity/Electronics**

**ELEC- 595 Seminar** (1.00 - 2.00 cr.)

Repeatable: Yes

Specific content is designed to upgrade competencies of participants. Content will change to reflect current state of the art in electricity/electronics or power mechanics.

**ELEC- 749 Cooperative Education Experience** (1.00 - 8.00 cr.)

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**ELEC- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **ENGGR – Engineering Graphics**

**ENGGR- 595 Seminar** (1.00 - 2.00 cr.)

Repeatable: Yes

(Title will reflect specific design, research and development content). Current and projected communication methods, concepts, technologies and innovations in design, research and development.

**ENGGR- 600 Workshop:** (1.00 - 3.00 cr.)

Repeatable: Yes

Special topics in design, research and development, providing hands-on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

**ENGGR- 636 Computer Assisted Design Problems** (3.00 cr.)

Repeatable: No

Advanced CADD applications. Construct three dimensional wireframe drawings. Perform finite element analysis on select components. Customize software for specific applications. Customize software for specific applications. In-depth analysis of CADD applications in mechanical and architectural design.

**ENGGR- 666 3-D Computer Modeling & Rendering** (3.00 cr.)

Repeatable: No

Development of three-dimensional computer models and computer graphic images. Includes 3-D surface modeling and rendering.

**ENGGR- 749 Cooperative Education Experience** (1.00 - 8.00 cr.)

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**ENGGR- 792 Special Projects In Drafting/Product Design** (2.00 - 6.00 cr.)

Repeatable: Yes

Substantive study and activity for specialists in the design, research & development field to include library work, field observation, laboratory work planned by the student and approved and supervised by a faculty consultant in design, research & development. Preparation of a technical report may be repeated for a maximum of six semester credits.

Department consent

**ENGGR- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **ENGL – English (also see LIT)**

**ENGL- 512 Transnational Professional Communication** (3.00 cr.)

Repeatable: No

Theories and practical approaches to the global aspects of professional communication, including translation and cross-cultural visual communication. Apply cultural models in order to understand and address the needs of users and colleagues from different cultural and linguistic backgrounds.

**ENGL- 615 Technical Writing** (3.00 cr.)

Repeatable: No

On-the-job writing for business and industry; reports, letters and other documents.

**ENGL- 635 Writing Technical Manuals** (3.00 cr.)

Repeatable: No

Production of a technical manual--planning procedure, collecting information, analyzing audience, writing and field testing.

**ENGL- 637 Technical Writing Practicum** (1.00 - 3.00 cr.)

Repeatable: Yes

Plan, write and produce a technical document for a client. Principles of document design, clear writing for a specific audience, methods of determining client needs, and methods of producing the final document.

Department consent

**ENGL- 700 Theory and Research in Technical Communication** (3.00 cr.)

Repeatable: No

Theoretical concepts and research methods in technical and professional communication.

**ENGL- 712 Communicating in Multilingual Environments** (3.00 cr.)

Repeatable: No

Language change, World Englishes, and writing systems in different languages. Theoretical approaches to negotiating language difference. Application of course topics to written communication in online, multilingual environments.

**ENGL- 720 Rhetorical Theory** (3.00 cr.)

Repeatable: No

Classical and modern theories of rhetoric and rhetorical analysis.

**ENGL- 725 Advanced Usability** (3.00 cr.)

Repeatable: No

In-depth study of the principles, processes, and techniques of usability testing and evaluation.

**ENGL- 730 User-Centered Research for Technical Communicators** (3.00 cr.)

Repeatable: No

Theories and practice of user-centered research in technical and professional communication. Emphasis on applying user-centered research methods in a variety of writing and communication contexts.

**ENGL- 735 Field Project in Technical and Professional Communication** (1.00 - 3.00 cr.)

Repeatable: No

Completion of an original field project for business or industry, culminating in a deliverable for a client and a project report presented in a research project format.

*Prerequisite: Take ENGL-700*

**ENGL- 737 Technical and Professional Communication Portfolio** (1.00 cr.)

Repeatable: No

Analysis and production of portfolios for use in academia and industry.

**ENGL- 740 Visual Rhetoric for Technical and Professional Communicators** (3.00 cr.)

Repeatable: No

Rhetorical theory and technical communication research in document design and related visual communication principles. Strategies for designing documents, data displays, and other products used by technical communicators in the workplace.

**ENGL- 745 Communication Strategies for Emerging Media** (3.00 cr.)

Repeatable: No

Emerging media and digital technologies as catalysts of cultural

change, and how such changes have affected the way technical communicators write, share, and consume materials.

**ENGL- 750 Special topics in Technical and Professional Communication** (3.00 cr.)

Repeatable: Yes

In-depth study of special topics in the field of technical and professional communication.

**ENGL- 770 Technical and Professional Communication Thesis** (1.00 - 6.00 cr.)

Repeatable: No

Selection, investigation, and completion of an original research project, culminating in a paper prepared according to thesis standards describing the problem investigated, literature review, methods, and interpretation of findings.

Instructor's consent

*Prerequisite: Take ENGL-700*

**ENGL- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**FCSE – Family and Consumer Science Education**

**FCSE- 500 Externship: Family And Consumer Sciences Community Education** (4.00 - 8.00 cr.)

Repeatable: No

Practicum in one or more of the following family and consumer sciences education programs: extension services, elementary education, post- secondary education, occupational teaching experience and community educational services. Approval of graduate program director required if taken for graduate credit. Department consent

**FCSE- 503 Family And Consumer Sciences Education In The Middle And Elementary Schools** (3.00 cr.)

Repeatable: No

Develop techniques, materials and curriculum concepts in family and consumer sciences education with application of human growth and development principles for teaching in middle and elementary school.

**FCSE- 520 Career And Technology Education Programs In FCSE** (2.00 cr.)

Repeatable: No

Techniques, materials and curriculum for family and consumer sciences wage-earning programs in secondary and post-secondary schools; preliminary procedures for program development.

**FCSE- 580 Consumer Economics** (3.00 cr.)

Repeatable: No

Personal and family consumer economics for family and consumer education programs; management of human and non-human resources in achieving personal, family and community goals.

*Prerequisites: take either ECON-201 or ECON-210*

**FCSE- 585 Family Housing (3.00 cr.)**

Repeatable: No

Individual/family's housing needs and resources as a basis for family and consumer education programs. The impact of historical, environmental, social, cultural, and technological, aesthetic, and design influences.

**FCSE- 651 Family Life Education Programs (2.00 cr.)**

Repeatable: No

Development of family life education programs including methods, materials and techniques for teaching family relationships and child development at the secondary level.

Instructor's consent

**FCSE- 720 Special topics In Family And Consumer Sciences (1.00 - 2.00 cr.)**

Repeatable: No

Consideration of problems in contemporary living that are affecting family and consumer sciences education and their influence on the teaching of homemaking.

**FCSE- 725 Graduate Internship In Family And Consumer Sciences Education (8.00 cr.)**

Repeatable: No

A clinical assignment in a school for one semester during which time the student integrates in-depth academic knowledge and pedagogical skill.

Department consent

**FCSE- 735 Problems In Family And Consumer Sciences (2.00 cr.)**

Repeatable: No

Identification, selection and completion of a problem in family and consumer sciences, culminating in a Plan B paper.

*Prerequisite: take EDUC-740*

**FCSE- 770 Thesis-Family And Consumer Sciences Education (2.00 - 6.00 cr.)**

Repeatable: Yes

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of 6.

*Prerequisite: take EDUC-740*

**FCSE- 797 Field Experience In Family And Consumer Sciences Education (2.00 cr.)**

Repeatable: No

Field experience related to family and consumer sciences education skills and knowledge used in teaching wage-earning courses at secondary level.

Department consent

**FCSE- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**FN – Food and Nutrition****FN- 510 Lifespan Nutrition (3.00 cr.)**

Repeatable: No

Nutrition concepts and concerns associated with each lifespan stage; integration of social, psychological, cultural, economic, and legislative factors to develop issue-centered approaches to meet nutrition needs.

**FN- 512 Nutritional Assessment (2.00 cr.)**

Repeatable: No

Introduction to basic components of nutritional assessment as applied to individuals.

**FN- 520 Advanced Nutrition (3.00 cr.)**

Repeatable: No

Concepts of the metabolic and physiological functions of nutrients at the molecular, cellular, tissue, organ and system level. Emphasis on coordinated control of nutrient metabolism.

**FN- 525 Special topics In Food And Nutrition (1.00 - 3.00 cr.)**

Repeatable: Yes

Study of special topics in food and nutrition.

**FN- 530 Institutional Menu Planning (3.00 cr.)**

Repeatable: No

Principles of cycle menu planning, design, and marketing for institutional food settings, which includes culinary skills, basic food preparation and modified menus to meet the special dietary needs of an individual or group.

**FN- 542 Advanced Foods (3.00 cr.)**

Repeatable: No

Comparative studies of food selection and preparation; appraisal of foods.

**FN- 550 Unit Operations in Food Processing (3.00 cr.)**

Repeatable: No

Principles, technology, and application of unit operations in food processing; laboratory and pilot-scale processing of food and agricultural commodities; quantitative measurements and analysis of unit operations.

**FN- 555 Sports Nutrition (3.00 cr.)**

Repeatable: No

Nutritional and metabolic requirements of physical activity. Metabolic fuel utilization during exercise and physiological adaptations to exercise training will be discussed. The health and well- being benefits of an optimal diet-exercise regime will be emphasized.

**FN- 560 Nutrition Counseling: A Team Approach (3.00 cr.)**

Repeatable: No

Inter-disciplinary team approach to individual and group client-centered nutrition counseling which includes assisting and advising clients on dietary information. Skills and techniques based on



nutrition counseling theories that are most useful to registered dietitians in enhancing quality of life and planned nutrition intervention.

*Prerequisites: take FN-512*

**FN- 600 Food Quality (4.00 cr.)**

Repeatable: No

Applications of qualitative and quantitative tools in conjunction with statistical methods to implement quality management in the food industry.

Instructor's consent

**FN- 606 Nutrition Education (3.00 cr.)**

Repeatable: No

Nutrition education as planned behavioral change: problems and solutions in instructing various populations; identification, development and evaluation of nutrition resources.

**FN- 610 Food & Nutrition Policy Regulation & Law (3.00 cr.)**

Repeatable: No

Food and nutrition policy development and evolution. Key acts and agencies governing food regulation and law. Process of creating or changing law. Compliance and enforcement rules in inspection, labeling, export and import. Administrative practice in food law including proceedings and judicial review.

**FN- 613 Maternal And Child Nutrition (3.00 cr.)**

Repeatable: No

Application of principles to maternal, infant, child and adolescent nutrition.

**FN- 614 Catering (3.00 cr.)**

Repeatable: No

Theory and application of operational and managerial principles for on/off-premise catering for special events. (Cannot be taken for credit by students who have previously taken ht-624.) A special course fee applies.

**FN- 615 Nutritional Issues In Gerontology (3.00 cr.)**

Repeatable: No

Theory and relationships of nutrition, longevity and aging. Food and nutrition legislation for the elderly--theory and implementation.

Nutritional implications of acute and chronic disease states common among the elderly.

*Prerequisites: take FN-520 and CHEM-511*

**FN- 617 Medical Nutritional Therapy I (3.00 cr.)**

Repeatable: No

Principles and methods for use in certain pathological conditions or chronic and acute disease processes. Incorporates principles of medical nutritional therapy in nutrition assessment, diet prescription, medications, care plans and documentation.

*Prerequisites: take FN-512*

**FN- 618 Medical Nutritional Therapy II (4.00 cr.)**

Repeatable: No

Principles and methods for use in certain pathological conditions or chronic and acute disease processes. Incorporation of the principles of nutrition assessment, diet prescription, medications, care plans, and documentation into the management of disease processes.

*Prerequisites: take FN-512 and FN-617*

**FN- 620 Food Styling (1.00 - 3.00 cr.)**

Repeatable: Yes

Food as media for artistic expression; effective use of color, form and texture.

**FN- 625 Food Chemistry (3.00 cr.)**

Repeatable: No

Chemical structure and properties of food components, including water, carbohydrates, protein, lipids, other nutrients and food additives; chemical reactions of food components during processing, storage and utilization.

**FN- 631 Readings In Food Science And Nutrition (1.00 - 2.00 cr.)**

Repeatable: Yes

Critical reading, evaluating, and reporting from pertinent current journals and other publications.

**FN- 635 Food Analysis (3.00 cr.)**

Repeatable: No

Principles and methods in analysis of nutritive and bioactive components in food; nutrient and ingredient characterization; analytical methods in food quality and safety assurance; standard methods in the food quality control laboratory.

**FN- 638 Experimental Foods (3.00 cr.)**

Repeatable: No

Experimentation with selected food materials, techniques and equipment; directed study in individually chosen area.

**FN- 642 Basic Sensory Analysis (3.00 cr.)**

Repeatable: No

Sensory analysis of appearance, texture, flavor; physiology of sensory receptors; application of laboratory and consumer panels; and interpretation of data.

**FN- 650 Food Engineering (3.00 cr.)**

Repeatable: No

Application of pertinent chemistry, physics and mathematics principles to food processing.

**FN- 661 Multicultural Aspects Of Food & Nutrition Patterns (3.00 cr.)**

Repeatable: No

Food and nutrition patterns as influenced by social, religious, geographical, economic and political factors. Cultures emphasized include Native American, African American, Hispanic and Asian American. Food as a means of cross-cultural communication.

**FN- 665 Food Product Development (3.00 cr.)**

Repeatable: No

Food ingredient properties; integrated application of professional competencies for food product development.

**FN- 670 Food Distribution Operations And Control (3.00 cr.)**

Repeatable: No

Current trends and management strategies in the distribution of food and beverages, from manufacturer to consumer.

**FN- 680 Research Critiques in Food Microbiology (3.00 cr.)**

Repeatable: No

Research evidence examining mechanistic concepts in microbial food spoilage, infectious disease and molecular epidemiology. Methods of assessing safety risks and design of interventions to manage risks in food processing environments.

**FN- 701 Trends In Nutrition (2.00 cr.)**

Repeatable: Yes

Practical application of recent developments in the field of nutrition.

*Prerequisite: take FN-212*

**FN- 710 Clinical Nutrition (3.00 cr.)**

Repeatable: No

Innovative approaches in nutrition therapy. Clinical experience offered in area health care facilities.

*Prerequisite: take FN-618*

**FN- 712 Practicum In Community Nutrition Programs (1.00 - 2.00 cr.)**

Repeatable: Yes

Advanced experience in community nutrition programs. Individual project in nutrition counseling, identification, delivery and evaluation of nutrition and appropriate food services.

Department consent

*Prerequisites: take FN-606 and FN-618*

**FN- 715 Menu Analysis And Planning (3.00 cr.)**

Repeatable: No

Principles of planning and designing menus for production and sales in commercial and institutional food services. Special emphasis is given to computerization of the menu planning process.

**FN- 720 Workshop In Foods (1.00 cr.)**

Repeatable: Yes

Discussion of current issues in food science and technology, food marketing and management, and for developing strategies for conducting and disseminating food related research. Includes critical analyses of variety of food oriented research projects.

**FN- 721 Workshop In Nutrition (1.00 cr.)**

Repeatable: Yes

A forum for discussion of current issues in human nutritional science and nutrition marketing and management, and for developing strategies for conducting and disseminating nutritional science research. Includes critical analyses of variety of nutrition-focused research projects.

**FN- 725 Flavor Chemistry (3.00 cr.)**

Repeatable: No

Chemistry of flavor compound formation, release and changes; important reactions and biochemical mechanisms in food flavor chemistry. Definitions and analytical methods in flavor and off-flavor analysis. Flavor interaction in foods and human perception. Food flavor technology and application in food industry.

Instructor's consent

**FN- 728 Introduction to Food and Nutritional Sciences Research (3.00 cr.)**

Repeatable: No

Methods for answering food and nutrition research questions. Identify problems, critically evaluate the relevant research and interpret/report data and conclusions in order to write a critical literature review with bibliography.

*Prerequisites: MS Food and Nutritional Science Students only and STAT-520*

**FN- 729 Research Proposal for Food and Nutritional Sciences (3.00 cr.)**

Repeatable: No

Design and write a research proposal with appropriate objectives, instrumentation, sampling techniques and statistical analyses aligned to a problem in food and nutritional sciences. *Prerequisites: For MS in Food and Nutritional Sciences students only; FN-728*

**FN- 735 Problems In Food Science And Nutrition (2.00 cr.)**

Repeatable: No

Identification, selection and completion of a problem in food science and nutrition, culminating in a Plan B paper and oral presentation of the paper.

*Prerequisite: take EDUC-740*

**FN- 736 Micronutrients (3.00 cr.)**

Repeatable: No

Absorption and intermediary metabolism of minerals, vitamins and other organic compounds with nutritional relevance. Analysis and application of current research as it relates to these micronutrients are emphasized.

**FN- 737 Macronutrients (3.00 cr.)**

Repeatable: No

Digestion, absorption, transport, metabolism, health concerns, functions and micronutrient interrelationships to water, carbohydrate, lipid and protein are the focus of this course. Analysis and application of current research related to these macronutrients are emphasized.

**FN- 738 Medical Nutrition for the Geriatric Person (3.00 cr.)**

Repeatable: No

Medical nutritional care of the long-term care, home health, extended care for the elderly, geriatric patient/individual/person. Regulatory compliance, nutrition documentation, nutrition assessment and standards of nutritional care.

*Prerequisites: take FN-615, FN-617, or FN-618 or consent of instructor.*

**FN- 740 Food Preservation Technology (3.00 cr.)**

Repeatable: No

Application and evaluation of the technology of food preservation to selected areas in food science.

*Prerequisite: take CHEM-511*

**FN- 742 Sensory Evaluation Of Food (3.00 cr.)**

Repeatable: No

Selection, identification and measurement of food evaluation tools using consumer and laboratory sensory panels.

**FN- 746 Food Innovations (2.00 - 3.00 cr.)**

Repeatable: No

Effects of food industry innovations on preparation and service of foods. A special course fee applies.

**FN- 749 Cooperative Education Experience (1.00 - 6.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industry experience. Entails recurring, supervised work periods at the graduate level.

Department consent

**FN- 750 Food Packaging (3.00 cr.)**

Repeatable: No

Interrelationship of food and packaging. Technical content appropriate to solve complex and interrelated problems in food packaging research and development.

Instructor's consent

**FN- 756 Advanced Experimental Food (3.00 - 4.00 cr.)**

Repeatable: No

Principles of research methods applied to directed investigations in food preparation. *Prerequisite: take FN-638*

**FN- 760 Nutraceuticals/Functional Foods (3.00 cr.)**

Repeatable: No

Exploration of the growing nutraceutical/functional food industry emphasizing production, control, development of natural health products, social and regulatory issues, research key issues.

**FN- 770 Thesis--Food Science And Nutrition (1.00 - 6.00 cr.)**

Repeatable: Yes

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, preparation of the final paper according to thesis standards and oral presentation of the research. Student may enroll for variable semester hours of credit in various terms with a final total of six.

*Prerequisite: take EDUC-740*

**FN- 797 Field Experience (2.00 cr.)**

Repeatable: No

Department consent

**FN- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**FN- 865 Supervised Practice In Medical Nutrition Management (3.00 - 14.00 cr.)**

Repeatable: Yes

Supervised practice experience in clinical, community nutrition and foodservice management. Structured experiences are provided at hospital, clinic, community and public school sites. Successful completion of more than 900 hours for 18 credits meets the Academy of Nutrition and Dietetics requirement for a supervised practice program.

Department consent

*Prerequisites: take FN-606, FN-710, and FN-712, all with a B or better.*

**GDD – Game Design and Development****GDD- 650 Three-Dimensional Game Design and Development 1 (4.00 cr.)**

Repeatable: No

Design and development of 3D games from concept to prototype in teams, modeling the approach used in the game development industry. The first of a two-semester sequence to be followed by GDD-651.

Instructor's consent

**GDD- 651 3D Game Development 2 (4.00 cr.)**

Repeatable: No

Design and development of 3D games from concept to prototype in teams, modeling the approach used in the game development industry. Second of two-semester sequence; to be preceded by GDD-650.

Instructor's consent

**GEM – Golf Enterprise Management****GEM- 645 Event Management (3.00 cr.)**

Repeatable: No

Planning, organization and the management of events will be investigated for the hospitality, tourism and golf industries. Emphasis is placed on the design, internal management systems and post- event evaluation.

**HDFS – Human Development and Family Studies****HDFS- 510 Family Stress, Coping And Adaptation (1.00 cr.)**

Repeatable: No

Impact of family development and stress on individual and family well-being.

**HDFS- 513 Parent Education/Involvement (2.00 cr.)**

Repeatable: No

Parent groups: training of leaders, survey of literature. Practicum with parent groups.

**HDFS- 520 Divorced, Single Parent And Remarried Family (2.00 cr.)**

Repeatable: No

Trends and issues in divorce, single parenting and remarriage related to effects on adults, children and society.

**HDFS- 525 Human Development: Middle Childhood And Adolescence (3.00 cr.)**

Repeatable: No

Empirical study of physical, intellectual, social and emotional development of children.

**HDFS- 530 Human Development: Early And Middle Adulthood (3.00 cr.)**

Repeatable: No

Study of adults in the family context during the early and middle years.

**HDFS- 532 Death And Bereavement (3.00 cr.)**

Repeatable: No

Significance of death and bereavement for the American culture, individual and family. Special consideration given to major tasks of grieving for children and adults.

**HDFS- 540 Human Development: Late Adulthood (3.00 cr.)**

Repeatable: No

Survey of the field of gerontology focusing on what it means to grow old in the United States from a systemic perspective. Multicultural attitudes toward aging; the psychological, physical, social and economic needs and problems of the older population are addressed. Consideration will be given to the personal, familial, environmental and social resources of the older population.

**HDFS- 541 Family Caregiving To Dependent Elders (1.00 cr.)**

Repeatable: No

Unique challenges confronting adult children who provide care to aging parents. Government, agency, workplace and family policies and practices promoting and/or undermining family strengths and well-being.

**HDFS- 545 Health Care Dilemmas & Decisions For Families (3.00 cr.)**

Repeatable: No

Bioethical issues facing U.S. families. Selected issues provoke deep and troubling questions that will be addressed from a multidisciplinary perspective through readings, student-led discussion, lectures, and case reviews.

**HDFS- 552 Sexual and Gender Identities in Families and Society (3.00 cr.)**

Repeatable: No

Introductory understanding of sexual and gender identities in families and society.

**HDFS- 564 Sibling Relationships (3.00 cr.)**

Repeatable: No

Seminar focusing on sibling relationships across the life course, examining the issues, processes and dynamics affecting these bonds  
Instructor's consent

**HDFS- 565 Family Resource Management (3.00 cr.)**

Repeatable: No

Individual and family use of resources to meet needs and attain goals. Critical evaluation of resource disparities and how families are impacted. Develop approach to working with diverse families and external systems on issues of resource management.  
Instructor's consent

**HDFS- 570 Living with the Spectrum: Autism and Family Life (3.00 cr.)**

Repeatable: No

Unique challenges, rewards, and family dynamics experienced by families impacted by autism spectrum disorder. Theoretical frameworks, life course and cultural considerations, ethical and policy issues, and implications for family practitioners.

**HDFS- 575 Grantsmanship For Nonprofits (1.00 - 2.00 cr.)**

Repeatable: No

Explore the availability of foundation grant money for nonprofit organizations. Designed to give the beginning grant writer an overview of grant purposes, foundation funding sources, proposal development and writing.

**HDFS- 595 Special topics In Human Development (1.00 - 2.00 cr.)**

Repeatable: Yes

Special topics in human development; repeatable for different topics.

**HDFS- 610 Families in an Electronic World (3.00 cr.)**

Repeatable: No

Effects of changes in communication technologies on family life over the past several decades. Impacts of television, computers, cell phones, and other communication technologies on daily life and family dynamics. Social issues stemming from technological advances and affecting family life including social networking, internet gaming, cybersex, cyberbullying, and the digital divide.

**HDFS- 623 Spirituality Across The Lifespan (2.00 cr.)**

Repeatable: No

Seminar discussion of autobiographical and biographical accounts of individual's spiritual experiences, beliefs and spiritual development over the life cycle.

**HDFS- 626 Special topics In The Study Of Family Life (1.00 - 3.00 cr.)**

Repeatable: No

Family life programs and literature; individual study of problems of personal or professional interest.

**HDFS- 642 Geriatric Functional Assessment (4.00 cr.)**

Repeatable: No

Multi-disciplinary assessment applied to elderly at critical transition points. Assessment of social and economic status, functional status (activities of daily living and instrumental activities of daily living), mental health, and environmental characteristics. Explore various measurement instruments. Background check required.  
*Prerequisite: take HDFS-540; background check required.*

**HDFS- 650 Family Policy (3.00 cr.)**

Repeatable: No

Family policy and family perspective in policymaking. Reciprocal relationship between families and public policies. Family policy formation, implementation, evaluation and advocacy.

**HDFS- 654 Suicide And The Family: Family And Community Intervention (1.00 cr.)**

Repeatable: No

Analysis of attempted and completed suicides from an interdisciplinary perspective. Forms of intervention, with emphasis upon family therapy, are compared, contrasted, and evaluated for suitability.

**HDFS- 656 Abuse And The Family (3.00 cr.)**

Repeatable: No

Definition and analysis of types of abuse in family context. Interrelationship of victims, perpetrators, other family members, helping professionals, social context. Risk factors, effects, reporting and recovery.

**HDFS- 660 Religious Diversity and the Workplace (3.00 cr.)**

Repeatable: No

Major world religions and some smaller religions, practices, similarities and differences within and between religions; implications of religious practices and beliefs for workplace settings.

**HDFS- 703 Child And Adolescent Development Seminar (3.00 cr.)**

Repeatable: No

Advanced seminar in various aspects of child and adolescent development.

**HDFS- 704 Child And Family Services (2.00 cr.)**

Repeatable: No

Review and analysis of the historical development and statutory base of child and family services as well as the social values, issues and trends that shape them.

**HDFS- 707 Issues And Problems In Parent Education (2.00 cr.)**

Repeatable: No

A study of the issues and problems of parent groups and the training of parent-group leaders.  
Instructor's consent

**HDFS- 715 Theories Of Family Processes (2.00 cr.)**

Repeatable: No

Advanced analysis of family interaction theory. Emphasis is on normal family processes as they apply to the practice of marital and family intervention.

**HDFS- 720 Special topics In Human Development And Family Studies (1.00 - 2.00 cr.)**

Repeatable: Yes

Consideration of contemporary problems in human development and family studies and their influence on family life.

**HDFS- 728 Contemporary Family Issues (3.00 cr.)**

Repeatable: No

Contemporary family issues and trends addressing continuity as well as the changing nature of relationships and families. Emphasis on family change within the larger context of ecological, demographic and economic change.

**HDFS- 735 Problems In Family Studies And Human Development (2.00 cr.)**

Repeatable: No

Identification, selection and completion of a problem in family studies and human development, culminating in a Plan B paper.

*Prerequisite: take EDUC-740*

**HDFS- 740 Issues In Family Life Education (2.00 cr.)**

Repeatable: No

Review of community-based programs for family and human development issues across the lifespan with consideration for personal philosophy, theory, research, development and evaluation of existing program models.

**HDFS- 742 Lifespan Family And Human Development Seminar (3.00 cr.)**

Repeatable: No

Human development theory; research, changing trends and issues are explored with focus upon family life cycle variations. Emphasis is given to the application of scientific knowledge to select issues and thematic narratives of lifespan development as well as to information regarding child development in families and their sociocultural contexts.

**HDFS- 746 Theory Based Qualitative And Quantitative Research Methods (3.00 cr.)**

Repeatable: No

Fundamentals of family and developmental research. Focus on qualitative and quantitative research designs, the role of theory, methods of data collection and analysis, and unique factors associated with family research. Preparation for completion of the comprehensive graduate project.

**HDFS- 749 Cooperative Education Experience (1.00 - 6.00 cr.)**

Repeatable: Yes

Work and study in an approved business/industry position related to the student's major. Selection by application and interview.  
Instructor's consent

**HDFS- 770 Thesis-Family Studies & Human Development (2.00 - 6.00 cr.)**

Repeatable: No

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature,

compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of 6.

*Prerequisite: take EDUC-740*

**HDFS- 797 Field Experience In Human Development And Family Studies** (2.00 cr.)

Repeatable: No

Field experience related to family and consumer sciences education skills and knowledge used in teaching wage-earning courses at secondary level.

Department consent

**HDFS- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**HLTED – Health Education**

**HLTED- 560 Personal Health And Fitness** (3.00 cr.)

Repeatable: No

Analysis of consequences of individual decisions and lifestyle choices related to personal health and well being.

**HLTED- 575 Methods In Health, Wellness And Fitness** (3.00 cr.)

Repeatable: No

Health education teaching methods, teaching health related concepts: stress management, cardiovascular fitness, nutrition, and physical testing.

**HLTED- 576 Organization And Administration Of Health Education** (3.00 cr.)

Repeatable: No

Planning, promoting, and implementing comprehensive health education programs at the elementary, middle, and secondary levels. Needs assessment; curriculum development and coordination; public relations; and the development of cooperative relationships with parents, private business, and voluntary and community health agencies.

Department consent

**HT – Hospitality and Tourism**

**HT- 515 Gaming Management** (3.00 cr.)

Repeatable: No

Overview of casino gaming operations in the Hospitality and Tourism industry from a global and local perspective. A special course fee applies.

**HT- 516 Casino Operations Management** (3.00 cr.)

Repeatable: No

Functions and transactions associated with the gaming operations environment within a resort casino.

**HT- 517 Psychosocial Issues In Gaming** (3.00 cr.)

Repeatable: No

A hospitality management and societal perspective of the pros and cons of gambling entertainment.

**HT- 523 Food Service Equipment** (2.00 cr.)

Repeatable: No

Factors affecting design, selection, physical facilities and utilities involved in foodservice equipment.

**HT- 524 Quantity Food Production** (3.00 cr.)

Repeatable: No

Quantity food production management concepts; menu planning, work production schedules, production analysis, food and labor cost controls, and sales projections, crisis and service management techniques; lab work in quantity food production and service; recipe development and introduction to productivity and work simplification concepts.

**HT- 526 Introduction To Wines And Spirits** (3.00 cr.)

Repeatable: No

Applied and historical knowledge of wines and spirits from different regions of the world; emphasis on preparation, selection, accompaniment with food, basic cost control analysis and service. A special course fee applies.

*Must be 21 years of age or older*

**HT- 535 Lodging Operations Management** (3.00 cr.)

Repeatable: No

Investigation of supervisory roles in lodging management, with an emphasis on the importance of financial statements and their interpretation, human resources and productivity, and providing quality hospitality services within all types of lodging facilities.

**HT- 544 Hospitality And Tourism Marketing And Sales** (3.00 cr.)

Repeatable: No

Analysis of marketing strategy, sales techniques, promotional tools, and research for hospitality and tourism development

**HT- 551 Hospitality Convention/Meeting Planning** (3.00 cr.)

Repeatable: No

The roles and responsibilities of professional hospitality meeting planners and hotel convention sales/service managers are examined for purposes of planning or hosting a major convention, or a corporate, association, or special group meeting event.

**HT- 553 Computer Systems For Food Service** (3.00 cr.)

Repeatable: No

Functions of computers in a variety of food service operations with specific emphasis on spreadsheets and food service application software. Experience using state-of-the-art technology and microcomputers.

**HT- 560 Tourism For Persons With Disabilities** (3.00 cr.)

Repeatable: No

Examination of the effectiveness of current legislation and initial

strategies to purposely accommodate the needs and preferences of persons with disabilities to promote a more inclusive environment within the hospitality and tourism industry.

**HT- 562 Foodservice Finance And Cost Control (3.00 cr.)**

Repeatable: No

The use of financial techniques and systems to develop and analyze budgets, control food, beverage, and labor costs in foodservice operations.

**HT- 570 Principles Of Property Management (3.00 cr.)**

Repeatable: No

Property management fundamentals. Topics include ownership goals, management direction, finance and maintenance of multi-family and commercial properties.

**HT- 571 Commercial/Residential Property Development And Management (3.00 cr.)**

Repeatable: No

Exploring factors involved in developing and managing property, both residential and commercial, including undeveloped land. Topics include feasibility studies, financing, appraisal, leases, purchase agreements and management contracts.

**HT- 583 Yield Management (3.00 cr.)**

Repeatable: No

Investigation of the use of computer technology in the lodging industry for revenue planning, scheduling and performance evaluation. Specialized software will be used to analyze and evaluate hotel performance.

**HT- 618 Casino Tourism (3.00 cr.)**

Repeatable: No

Research/travel and visits with Chambers of Commerce, casino management personnel, and governing entities to study economic, sociological and cultural impacts of gaming within a particular global or local region. A special course fee applies.

*Prerequisites: take HT-315, HT-316, and HT-317*

**HT- 623 Wine And Food Pairing (4.00 cr.)**

Repeatable: No

Matching wine and food from different parts of the world using flavors, textures, and components present in food and wine as complementing strategies. Emphasis on menu planning, food preparation, cooking methods and wine tasting with foods. A special course fee applies.

**HT- 624 Catering (3.00 cr.)**

Repeatable: No

Theory and application of operational and managerial principles for on- or off-premise catering for special events.

**HT- 626 Restaurant Operational Management (3.00 cr.)**

Repeatable: No

Application of the principles of food and beverage management in full service restaurants existing as independent units or as units

within a commercial/ noncommercial foodservice operation. The course will emphasize fine dining, fine cuisine and control systems.

**HT- 630 Lodging Administration (3.00 cr.)**

Repeatable: No

Analysis of theories, principles and techniques of lodging management; problems and issues encountered by management in providing quality service within cost-efficient organization.

*Prerequisite: take HT-583*

**HT- 640 Sociocultural Systems Of Tourism (3.00 cr.)**

Repeatable: No

Various psychosocial dimensions of tourism: motivation, development, community and conflict as related to consumer-tourists, tourists and residents.

**HT- 642 Trade Show Management (3.00 cr.)**

Repeatable: No

Investigate and apply the process and procedures to plan and manage a trade show from a developer and user perspective. Define the process to select and develop, arrange for site and support services leading to a profitable trade show.

**HT- 645 Event Management (3.00 cr.)**

Repeatable: No

Planning, organizing and the management of events will be investigated for the hospitality, tourism and golf industries. Emphasis is placed on the design, internal management systems and post event evaluation.

**HT- 647 International Convention And Meeting Management (3.00 cr.)**

Repeatable: No

Investigate the process and procedures to plan for meetings in other countries.

*Prerequisite: take HT-551*

**HT- 650 Food Service Administration (3.00 cr.)**

Repeatable: No

Organization and administration of institutional foodservice systems, personnel selection and training, cost control and problems of supervision.

**HT- 652 Hospitality Professionalism (2.00 cr.)**

Repeatable: No

Prepare hotel, restaurant and tourism students as professionals in a global community. Role-play emphasis on professional dress, dining etiquette, culture and business conversation, job search and placement techniques.

**HT- 654 Security And Risk Management For The Hospitality Industry (3.00 cr.)**

Repeatable: No

Advanced investigation of security and risk management within hospitality/service industries.



**HT- 657 Hospitality Management Strategies (3.00 cr.)**

Repeatable: No

Comparison and synthesis of hospitality management strategies; concepts and theories in relationship to long-term hospitality business goals and objectives. Capstone course for senior-level H&T students.

*Prerequisites: Senior level and HT-562*

**HT- 660 Hospitality Industry Law And Liability (3.00 cr.)**

Repeatable: No

Laws applicable to ownership and operation of inns, hotels, motels, restaurants and other places of public hospitality.

**HT- 661 Hospitality Employee Relations (3.00 cr.)**

Repeatable: No

History and legal strategies and tactics in dealing with hospitality employees in both union and non-union settings.

**HT- 670 Seminar In Property Management (3.00 cr.)**

Repeatable: No

Capstone course for Property Management. Preparation of a property management plan for a specific property. Discussion of current trends and industry problems. Exploration of development and operating strategies of property management firms.

**HT- 681 Special Problems In Hospitality And Tourism (1.00 - 3.00 cr.)**

Repeatable: Yes

**HT- 703 Customer Strategy (3.00 cr.)**

Repeatable: No

Integrate core concepts and focused paradigms of customer strategy into organizational philosophies. Frames the strategic process via organizational insights and analytical data to develop innovative and exceptional customer-focused solutions.

Department consent

**HT- 705 Science of Consumer Engagement (3.00 cr.)**

Repeatable: No

Critical evaluation of consumer consumption processes framed by theoretical and practical knowledge of the service delivery process. Provides insight into consumer behavior framed by a contemporary understanding of behaviors and neuromarketing-driven insights.

Department consent

**HT- 711 Pricing Strategies and Revenue Tactics (3.00 cr.)**

Repeatable: No

Synthesis of available services pricing strategies utilizing strategic, economic, marketing and psychological considerations to drive revenue. Addresses strategic and tactical issues to engender profit-generating pricing practices across professional contexts.

Department consent

**HT- 713 Consumer Value Creation for Hospitality (3.00 cr.)**

Repeatable: No

A customer-centric approach in developing and implementing

hospitality marketing strategies that acquire, develop and retain customers. Explores the customer value proposition, customer satisfaction, sustaining developed relationships and analyzing customer information in a complex marketplace.

*Must be enrolled in the MS in Hospitality Strategy program*

**HT- 715 Hospitality Customer Value Analysis (3.00 cr.)**

Repeatable: No

Financial impacts and methods to effectively acquiring, developing and retaining profitable customer relationships for hospitality-focused organizations. Addresses the customer profitability imperative through indirect benefits of loyalty, customer lifetime value, and maximizing customer equity.

*Must be enrolled in the MS in Hospitality Strategy program*

**HT- 721 Quality Service and Experience Assurance (3.00 cr.)**

Repeatable: No

Consumer-facing approaches to developing marketing, management and operations strategy to provide experiential customer engagement. Presents advanced models for loyalty-generating experiences and assuring quality service to build and maintain competitive advantage within organizations.

Department consent

**HT- 723 Strategic Alignment of Hospitality Human Capital (3.00 cr.)**

Repeatable: No

Theory and practice of adaptive work systems to transform individuals and hospitality organizations into consumer advocates. Strategic alignment of employees and internal structures/processes as an essential imperative to successfully drive revenue, profit and growth. *Must be enrolled in the MS in Hospitality Strategy program*

**HT- 725 Innovation for Competitive Advantage (3.00 cr.)**

Repeatable: No

Addresses innovation challenges by focusing on tools, techniques and concepts necessary to develop a consumer-focused, open-innovation culture. Critical elements to designing, developing and implementing innovative customer solutions across organizations and enterprise levels.

Department consent

**HT- 731 Data Interpretation and Hospitality Forecasting (3.00 cr.)**

Repeatable: No

Leverages consumer and operational information to accurately forecast future customer activities based on current patterns and behavior. Advancements in the explanation of consumer activities and predicting consumption patterns applied to hospitality and consumer-facing organizations. *Must be enrolled in the MS in Hospitality Strategy program*

**HT- 733 Hospitality Strategic Assessment and Analysis (3.00 cr.)**

Repeatable: No

Advanced strategic principles and assessment techniques for leading organizational change and process implementation within hospitality organizations. Capstone course focused on analyzing consumer-driven questions, improving performance and processes, and integrating assessment outcomes into hospitality industry

processes.

Department consent

*Must be enrolled in the MS in Hospitality Strategy program*

**HT- 735 Problems In Hospitality And Tourism (3.00 cr.)**

Repeatable: No

Independent research under direction of research adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, research methodology, conducting research in the hospitality of tourism field. Interpretation of results and a formal presentation is required.

*Prerequisite: take HT-701*

**HT- 747 Seminar In Hospitality Management (3.00 cr.)**

Repeatable: Yes

Contemporary management theories and techniques to effectively manage a dynamic and diverse hospitality and tourism industry. Topics will address issues that relate to current and future needs.

**HT- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**HWF – Health, Wellness and Fitness**

**HWF- 522 Fitness Assessment (2.00 cr.)**

Repeatable: No

Fitness evaluation theory and practice.

**HWF- 618 Administration of Strength Training and Conditioning (4.00 cr.)**

Repeatable: No

Exercise science and its application to program design, implementation, and evaluations. Preparation for the National Strength and Conditioning Association (NSCA) and the Certified Strength and Conditioning Specialist (CSCS) examinations.

**ICT – Information and Communication Technologies**

**ICT- 500 Workshop (1.00 - 3.00 cr.)**

Repeatable: Yes

Special topics in telecommunication systems, providing hands on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

**ICT- 503 Information and Communication Technologies Essentials (3.00 cr.)**

Repeatable: No

Components of computer hardware and operating systems, assembling a computer system, installing an operating system in a computer, and troubleshooting a computer using system tools and diagnostic software.

**ICT- 505 Information Systems for Enterprise (3.00 cr.)**

Repeatable: No

Information systems concepts and technology for contemporary enterprise. Includes hardware, software, networks and enterprise-specific information systems. Emphasis on business-prudent solutions/products based on clearly identified needs/goals.

**ICT- 509 Collaborative Computing (3.00 cr.)**

Repeatable: No

History application, design and analysis of collaborative computing.

**ICT- 511 Information and Communication Technologies Analytics (3.00 cr.)**

Repeatable: No

Determine the value of electronic information and communications, developing metrics, determining return on investment on information and communication technologies.

**ICT- 560 Introduction To Media In Education And Training (2.00 cr.)**

Repeatable: No

Use of media in education and training. Includes the production of media and instructional materials in print, video, computer-bases and multimedia formats.

**ICT- 565 Integrated Software Applications For Instruction (3.00 cr.)**

Repeatable: No

Software applications for the professional and personal use of instructors. The effective use of word processing, spreadsheet, database, presentation, communication and other appropriate software applications with emphasis on curricular integration and professional standards.

**ICT- 566 Integrated Media Applications For Instruction (3.00 cr.)**

Repeatable: No

Prepares instructors to use various media in the learning environment. Emphasis on proper curriculum integration based on sound curriculum design principles and professional standards.

Instructor's consent

*Prerequisite: MEDIA-565*

**ICT- 570 Computer-Assisted Interactive Video (3.00 cr.)**

Repeatable: No

Design, production and evaluation of interactive video applications. Analysis of various hardware and software systems.

Instructor's consent

**ICT- 575 Web Production and Distribution (3.00 cr.)**

Repeatable: No

Production and distribution of content to the World Wide Web. Consideration given to basic information architecture, standards, best practices, technologies, planning, implementation, management and distribution of digital content.

**ICT- 600 Workshop (1.00 - 3.00 cr.)**

Repeatable: Yes

Special topics in media technology providing hands-on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

**ICT- 601 Information Technology Policy And Audit (3.00 cr.)**

Repeatable: No

Information technology policy, regulatory and audit issues, international standards, and internal security strategies.

**ICT- 605 Enterprise Technology Seminar (3.00 cr.)**

Repeatable: No

Trends in enterprise technology, including: systematic development processes to solve business problems and support business processes, identification and use of contemporary enterprise technology solutions, sources of enterprise technology support, training and information and enterprise technology credentialing and career opportunities.

*Prerequisite: take ICT-601*

**ICT- 675 Dynamic Web Technologies (3.00 cr.)**

Repeatable: No

Contemporary applications of technologies affecting adaptive user-centered web development as pertaining to content, presentation, scripting, variable data, markup languages, information architecture and analytics.

*Prerequisite: take ICT-575*

**ICT- 685 Search Engine Optimization (3.00 cr.)**

Repeatable: No

Contemporary application of strategies and technology related to the improvement of placement in search engine and other relevant search results.

**ICT- 700 Introduction to Information and Communication Technologies (2.00 cr.)**

Repeatable: No

Overview of the M.S. in Information and Communication Technologies. Research strategies, collaborative software overview and portfolio development.

**ICT- 701 Information And Communication Technologies In Organizations (3.00 cr.)**

Repeatable: No

Evaluation of information and communication technologies. Impacts and development of information and communication technologies in organizations and society.

*Prerequisite or Corequisite: Take ICT-700*

**ICT- 702 Seminar In Information and Communication Technologies (3.00 cr.)**

Repeatable: No

Current topics in information and communications technology. Use of portfolios for assessment. Use of multimedia tools to create a portfolio. Development of competencies to meet M.S. in Information and Communication Technologies requirements. Create portfolio framework. *Prerequisite: take ICT-701*

**ICT- 710 Learning Technologies (3.00 cr.)**

Repeatable: No

Overview and selection criteria of instructor-led, computer-based, and distance learning systems for delivering content to trainees in

the workplace. Includes the development of training materials in a variety of formats.

**ICT- 732 Technology Futures (3.00 cr.)**

Repeatable: No

Apply systems thinking in developing frameworks for forecasting technology driven topics. Examine the implications of technological change along with social change for various futures.

**ICT- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

**ICT- 780 Information And Communication Portfolio (1.00 - 3.00 cr.)**

Repeatable: Yes

Develop and present a portfolio that contains artifacts and research-based reflections that demonstrate the competencies for the M.S. in Information and Communication Technologies. The final product is an electronic portfolio.

*Prerequisite: take ICT-702*

**ICT- 797 Field Experience (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**ICT- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: No

Department consent

**INMGT – Industrial Management****INMGT- 500 Engineering Economy (2.00 - 3.00 cr.)**

Repeatable: No

Source and application of funds: cost control, valuation, depreciation, replacement theory and taxation.

**INMGT- 501 Seminar (1.00 - 2.00 cr.)**

Repeatable: Yes

(Title will reflect specific business or management content.) Current topics in business and industrial management to meet specific needs of students enrolled.

**INMGT- 502 Seminar (1.00 cr.)**

Repeatable: No

Elements of time management, strategies and techniques in industrial and business environments. Analysis of time use by all levels of management.

**INMGT- 505 Resource Planning And Materials Management (3.00 cr.)**

Repeatable: No

Principles and techniques for planning and managing materials and

resources within organizations and throughout a supply chain. Topics covered include resource and material planning, forecasting, master planning, materials requirements planning, capacity management, purchasing, inventory management, distribution options, supply chain management, and various operational management techniques.

**INMGT- 514 Manufacturing Enterprise Practicum (3.00 cr.)**

Repeatable: No

Creation, planning, organizing, directing, staffing and controlling of a value-added manufacturing enterprise, including supply chain management; manufacturing, marketing and distribution of a product.

**INMGT- 520 Quality Tools (3.00 cr.)**

Repeatable: No

Practical and statistical quality control in design and use of Quality Assurance Programs: Quality Engineering, Manufacturing Quality Assurance and Product Quality Assurance.

**INMGT- 525 Quality Management (3.00 cr.)**

Repeatable: No

Provides the managerial and technical knowledge necessary to prepare, document, manage, and evaluate quality systems from beginning design through system operation and post-delivery customer services within a product or service environment.

**INMGT- 535 Lean Manufacturing Systems (4.00 cr.)**

Repeatable: No

Introduction to production/operations management and lean manufacturing system design for engineers. Emphasis is given to analysis and design of production systems, facility layout, and globalization.

**INMGT- 550 Facilities Planning (3.00 cr.)**

Repeatable: No

Study of facilities location, structure, and planning for efficient layout and material handling systems.

**INMGT- 565 Project Management (3.00 cr.)**

Repeatable: No

Planning, scheduling, and control of technical projects. topics covered include activity identification, network diagrams, scheduling, PERT/CPM, cost analysis, resource management, and computer control.

**INMGT- 600 Organizational Leadership (3.00 cr.)**

Repeatable: No

Addresses the leader's role in accomplishing organizational objectives through the management and development of followers. Concepts of organizational and individual behavior serve as a foundation for the development of leadership skills such as communication, motivation, leading, team building, building credibility, and conflict management.

**INMGT- 605 Resource Planning And Materials Management Practicum (3.00 cr.)**

Repeatable: No

Provides students with specific skills in managerial techniques for planning, scheduling and controlling resources in manufacturing and service organizations. This course focuses on the first two of the five required APICS exams that lead to certification as a Certified in Production and Inventory Manager (CPIM).

**INMGT- 610 Six Sigma Quality Improvement Methods (3.00 cr.)**

Repeatable: No

Overview of Six Sigma quality improvement applications. Application of scientific methods to improve quality of products, service, processes, and management systems.

**INMGT- 615 Inclusivity in Leadership (3.00 cr.)**

Repeatable: No

An examination of leadership dynamic for but not limited to women, people of color, and other underrepresented populations including approaches to leading, communicating, and developing inclusive organizations.

**INMGT- 616 People Process Culture (3.00 cr.)**

Repeatable: No

A study of high performing people process culture organizations integrating sociology, applied psychology, and organization behavior subject matter areas.

*Prerequisite: take either INMGT-600 or PSYC-582*

**INMGT- 620 Quality Assurance--Practicum (3.00 cr.)**

Repeatable: No

Application of principles and techniques learned in INMGT-520, as part of Professional Semester/ Manufacturing Laboratory.

*Prerequisites: take INMGT-520 and INMGT-525*

**INMGT- 622 Quality Engineering (3.00 cr.)**

Repeatable: No

Practical and statistical engineering methods to improve quality and design in a manufacturing environment.

**INMGT- 625 Planned Experimentation For Quality Improvement (3.00 cr.)**

Repeatable: No

Quality improvement through planned experimentation that focuses on product realization activities which consist of new product design and formulation, manufacturing process development and improvement.

**INMGT- 630 Employee Involvements: Work Teams (2.00 cr.)**

Repeatable: No

Background and history of employee involvement, teams as a method of employee involvement, analysis of the advantages and disadvantages of different team structures and the planning processes used to implement team structures, analysis of situational variables used to help design the best team approach for an organization, the support systems needed to maintain teams,

phases of team development, facilitation skills, and team problem-solving methods.

**INMGT- 640 Lean Enterprise (3.00 cr.)**

Repeatable: No

Principles of lean techniques, justification of lean systems, how lean systems are scheduled, and cost analysis of a lean environment.

**INMGT- 660 Industrial Management (2.00 cr.)**

Repeatable: No

Principles and methods of analyzing and solving industrial problems; application through case studies, management games and special problems.

**INMGT- 662 Global Manufacturing Study Tour (2.00 - 3.00 cr.)**

Repeatable: No

Visit global sites to understand the current state of product design, manufacturing, and distribution in both developed and developing countries. Learn how to develop supplier, manufacturing, and distribution systems in a global setting.

**INMGT- 675 Advanced Project Management (3.00 cr.)**

Repeatable: No

Advanced planning, control, and leadership of technical projects and programs. topics covered include: project and program justification, project management maturity and methods, multiple project or portfolio management, project management in multinational cultures, virtual project teams, requirements definition, and outsourcing.

*Prerequisite: take INMGT-565*

**INMGT- 700 Organizational Research Methods (3.00 cr.)**

Repeatable: No

Quantitative and qualitative approaches to organizational and industrial research. Application of appropriate research tools to understand interpersonal relationships, analyze and design jobs, organizations and systems. This course should be taken the next to last semester in a student's coursework. Development of a research proposal that may be used to complete master's level field project/thesis.

**INMGT- 705 Enterprise Resource Planning (3.00 cr.)**

Repeatable: No

Planning and management of material flow and production activities. Topics include forecasting, sales and operations planning, demand management, master production scheduling, material requirements planning, production execution, lean systems and how ERP software serves to reinforce the interconnectedness of operations with the other business functional areas.

**INMGT- 710 Seminar In Operations Management (3.00 cr.)**

Repeatable: No

Current concepts essential to achieving excellence in global operations and supply management. Current theory and practice of operation of engineering, marketing, manufacturing, financial administration and industrial relations aspects of industry with a focus on globalization and international management.

**INMGT- 712 Operational Disruption Management (3.00 cr.)**

Repeatable: No

The importance of being able to recognize and manage operational and supply disruptions. Topics include: identification and mitigation of technology and supply disruptions, ethical considerations, cost implications and recovery planning.

**INMGT- 715 Organizational Consulting (3.00 cr.)**

Repeatable: No

Introduction to the field of organizational consulting. Practical approaches using an interactive process to help individuals and organizations develop more rapidly and produce more satisfying results. Develop proficiencies in a range of skills required to practice consulting.

**INMGT- 718 Advanced Quality Management (3.00 cr.)**

Repeatable: No

Compare and contrast the philosophical frameworks advocated by celebrated quality experts such as Deming, Juran, and Crosby. The role of leadership will be related to strategic planning and quality improvement. Metrics will be analyzed as to how their use can lead to quality and business performance improvements.

**INMGT- 730 Advanced Technical Problems--Industrial Management (2.00 - 6.00 cr.)**

Repeatable: No

Advanced study in industrial management, management control, product development or process and facility planning. Recent developments, advanced technical work, experimental work and technical reports. A specific problem area for study in this course must be identified by the student prior to registering for this course. Department consent

**INMGT- 735 Problems in Operations and Supply Management (2.00 - 4.00 cr.)**

Repeatable: No

Identification, selection and completion of a problem in operations and supply management culminating in a Plan B paper.

*For M.S. in Operations and Supply Management or Technology Management students only*

**INMGT- 740 Decision Modeling (3.00 cr.)**

Repeatable: No

Application of quantitative methodology in industrial decision making. Topics include mathematical modeling, optimization algorithms, linear programming applications, integer programming application, non-linear programming applications, and simulation.

**INMGT- 745 Advanced Manufacturing Simulation (3.00 cr.)**

Repeatable: No

Theory and practice of simulation modeling of manufacturing systems. Theoretical aspects include types of simulation language, data distribution goodness-of-fit, warm-up and run length determination, statistical output analysis, optimization, and variance reduction. Models will be developed, run, animated, and analyzed using a high-level simulation language.

Instructor's consent

**INMGT- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**INMGT- 750 Organization Development (3.00 cr.)**

Repeatable: No

A blend of theory, evidence based research, and practice, developing students as leaders of organizational change. Learn skills specific to the field: theories and models, the process, research, and application of organization development principles. Develop and lead strategic change initiatives to enable organizations to be competitive.

*Prerequisite: take either INMGT-400 or INMGT-600*

**INMGT- 765 Program Management (3.00 cr.)**

Repeatable: No

Planning, control, and leadership of technical projects and programs. Justification, scheduling, risk management, cost analysis, resource management, program control, information technology, and multiple-project management.

**INMGT- 797 Field Experience (1.00 cr.)**

Repeatable: Yes

Department consent

**INMGT- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**ITC – Instructional Technology Coordinator****ITC- 710 Introduction To Instructional Technology Coordinator Administration (1.00 cr.)**

Repeatable: No

Instructional technology coordinator responsibilities regarding the leadership, staffing, planning, financing, and issues surrounding the role within the PK-12 environment.

**ITC- 760 Instructional Tech Coordinator Administration (3.00 cr.)**

Repeatable: No

Theoretical and practical skills necessary to perform the role of instructional technology coordinator within the PK-12 setting.

**ITC- 790 Instructional Tech Coordinator Practicum (2.00 cr.)**

Repeatable: No

Experience in the role of an instructional technology coordinator at a selected public school district under the guidance of a mentor at the school site and a university supervisor.

*Prerequisites: take ITC-710 and EDUC-726*

**ITC- 795 Instructional Tech Coordinator Internship (4.00 cr.)**

Repeatable: No

Advanced experience in the role of an instructional technology coordinator at a selected public school district under the guidance of a mentor at the school site and a university supervisor.

*Prerequisites: take ITC-760 and ITC-790*

**ITM – Information and Technology Management****ITM- 500 Workshop: Voice Mail & Unified Messaging (3.00 cr.)**

Repeatable: No

Cisco Unity Connection architecture, components, functionality, and features. Implement and administer Cisco Unity Connection to create a unified workspace encompassing applications, devices, networks, and operating systems. Explore the various administration tools and reports available in Cisco Unity Connection.

**ITM- 500 ITM Workshop: VMware Install, Configure, and Manage (3.00 cr.)**

Repeatable: No

Installing, configuring, and managing VMware vSphere, including VMware, vSphere, ESXi, and VMware VCenter Server.

**ITM- 508 Convergence Technologies (3.00 cr.)**

Repeatable: No

Creation of single networks that support many different types of traffic: data, audio, video, and interactive multimedia. Planning physical design and installation of a telephone and converged system, requirements of a converged network, and what makes convergence.

**ITM- 530 IP Telephony Design & Implementation (3.00 cr.)**

Repeatable: No

Internet protocol (IP) telephony components and protocols examination; converged network interpretation; analog and digital voice interface configuration; quality of service configuration; single and multisite IP telephony deployment; IP telephony features implementation.

**ITM- 561 Workstation And Server (3.00 cr.)**

Repeatable: No

Installing, configuring, and administering Microsoft Windows utilizing the current commercial version of the product for both workstations and servers. Helps prepare students for two of the Microsoft Certified Systems Engineer (MCSE) certification examinations.

**ITM- 562 Server Applications (3.00 cr.)**

Repeatable: No

Installing, configuring, and administering server applications using multiple industry standard operating systems. Server applications may include World Wide Web, FTP, software updates, mail, file sharing, DNS, DHCP, and terminal services.

*Prerequisite: take ITM-561*

**ITM- 563 Directory Services (3.00 cr.)**

Repeatable: No

Provides knowledge and skills to plan, implement, and troubleshoot

directory services. Design and implement a secure network. Focuses on a directory services environment, including forest and domain structure, domain name system, site ology and replication, organizational unit structure, and delegation of administrations. *Prerequisite: take ITM-561*

**ITM- 582 Network Systems Design (3.00 cr.)**

Repeatable: No

Concepts from communication networks. LAN, MAN, WAN networks. Introduction to LAN switching, ATM and virtual LANS. Designing and integration of LAN switching virtual networking and ATM into today's networks.

**ITM- 583 Introduction To Network Security (3.00 cr.)**

Repeatable: No

Design, implementation and management of network security in multilayered computer networks. Identifying and evaluating network security threats; internet, intranet, and extranet security issues.

**ITM- 591 Wireless Systems (3.00 cr.)**

Repeatable: No

Wireless networking combining Radio Frequency (RF) and Local Area Networking (LAN) technology fundamentals. Basic concepts and building blocks or the convergence between RF and networking technologies. Technologies and tasks vital to installing, managing, and supporting wireless networks. Instructor's consent

**ITM- 641 Scalable Internetworks (3.00 cr.)**

Repeatable: No

One of three core courses for preparation for the Cisco CCNP and CCDP professional certification. Students will learn how to build scalable routable networks. Students are required to pass the associated Cisco certification examination.

**ITM- 642 Remote Access Networks (3.00 cr.)**

Repeatable: No

One of three core courses for preparation for the Cisco CCNP and CCDP professional certification. Build remote access networks to interconnect central sites to branch offices and home offices. Students are required to pass the associated Cisco certification examination. *Prerequisite: take ITM-641*

**ITM- 643 Multi-Layer Switched Networks (3.00 cr.)**

Repeatable: No

One of three core courses for preparation for the Cisco CCNP and CCDP professional certification. Build multi-layer switched networks. Students are required to pass the associated Cisco certification examination. *Prerequisite: take ITM-641*

**ITM- 644 Internetwork Troubleshooting (3.00 cr.)**

Repeatable: No

Specialization course for the Cisco CCNP professional certification. Students will learn to troubleshoot internetworks. Students are

required to pass the associated Cisco certification examination. *Prerequisites: take ITM-641, ITM-642, and ITM-643*

**ITM- 650 Enterprise Solutions and Unified Communications (3.00 cr.)**

Repeatable: No

Enterprise-level network utilizing the technologies and methods that are current industry best practices. Provide enterprise network solutions and unified communications to an organization while maintaining quality of service. New and emerging network technologies for an enterprise network.

*Prerequisites: take ITM-530, ITM-563, and ITM-644*

**ITM- 684 Advanced Network Security and Auditing (3.00 cr.)**

Repeatable: No

Network infrastructure, operating systems, data centers, and virtualized environment security and auditing. Information technology government and industry regulation compliance.

**ITM- 690 Information Technology Management Capstone (3.00 cr.)**

Repeatable: No

Work with an outside organization in a team environment utilizing concepts of design, brainstorming, problem solving, team work, creativity, evaluation, and present findings in oral and written formats.

**ITM- 715 Computer Networking Foundations (3.00 cr.)**

Repeatable: No

Network infrastructure. Emphasis on LAN/WAN routing, switching, security and maintenance.

**ITM- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**ITM- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**LIT – Literature**

**LIT- 502 Topics In Literature (1.00 cr.)**

Repeatable: Yes

Intensive analysis of selected authors and literary works with emphasis on discourse analysis in group and workshop settings.

**LIT- 503 Coming of Age in Literature and Film (3.00 cr.)**

Repeatable: No

Exploration of literary and filmic works that treat age, coming of age, aging, and old age. Literary and critical analysis using age studies.



**LIT- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**MATH – Mathematics**

**MATH- 710 Introduction to Industrial Mathematics** (3.00 cr.)

Repeatable: No

Introduction to mathematical methods with direct applications in business and industry, including mathematical aspects of quality control, Monte Carlo methods, linear programming, model fitting, frequency domain methods, difference and differential equations, graph theory, and report writing.

**MATH- 720 Algebraic Structures** (3.00 cr.)

Repeatable: No

Modular arithmetic, Chinese remainder theorem, linear Diophantine equations, quadratic reciprocity, vector spaces, matrices, inner product, quadratic forms, finite fields, field extensions and solutions to equations over finite fields.

**MATH- 755 Differential Equations: Initial and Boundary Value Problems** (3.00 cr.)

Repeatable: No

Methods used in solving initial and boundary value differential equation problems that arise in applied mathematics, physics, engineering, economics, and statistics.

**MATH- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

**MBE – Marketing and Business Education**

**MBE- 500 Introduction to Teaching Marketing and Business Education** (3.00 cr.)

Repeatable: No

A study of becoming a teacher in the disciplines of Marketing and Business Education with a deep focus on their related career and technical student organizations.

**MBE- 501 Marketing and Business Methods and Formative Assessment** (4.00 cr.)

Repeatable: No

Interpret marketing and business content structures; analyze and develop teaching and learning methods, procedures and activities; plan and demonstrate formative assessments.

**MBE- 555 Marketing And Business Seminar** (2.00 - 3.00 cr.)

Repeatable: Yes

Issues and trends in marketing, business and career and technical education. Experiences necessary for success during student teaching and upon initial career entry.

**MBE- 601 Marketing Education Curriculum** (2.00 - 3.00 cr.)

Repeatable: No

Program, course and lesson-level curriculum development skills. Assessment systems, strategies, design elements, and test development skills.

**MBE- 611 Business Education Methods And Curriculum** (5.00 cr.)

Repeatable: No

Teaching methods and curriculum design for business educators. Emphasis on basic business subjects; business literacy and entry-level job preparation; issues and trends; demonstration and development of a standards-based business education curriculum.

**MBE- 612 Elementary Keyboarding Teaching Methods** (1.00 cr.)

Repeatable: No

Developmentally appropriate methods of instruction in keyboarding and emerging input technologies applicable to elementary educational settings. Must be an Elementary Certified Educator.

**MBE- 701 Issues In Marketing And Business Education** (2.00 cr.)

Repeatable: No

Definition, exploration and research of a current issue in secondary or postsecondary Marketing and Business Education.

**MBE- 702 Improving Methods And Materials For Mbe** (2.00 cr.)

Repeatable: No

Instructional materials and methods for utilization in secondary or postsecondary Marketing and Business Education.

Department consent

**MBE- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**MECH – Engineering Mechanics**

**MECH- 532 Mechanical Design** (4.00 cr.)

Repeatable: No

Analysis and design of machine elements: gearing bearings, shafting and friction devices.

**MECH- 537 Mechanical Design Drafting** (2.00 cr.)

Repeatable: No

Design of a machine, specifications, layout, calculations, bills of material, detail and assembly drawings.

**MECH- 592 Mechanics Of Machinery I** (3.00 cr.)

Repeatable: No

Dynamics of machinery: rectilinear and curvilinear motion; translation and rotation of a rigid body, force-acceleration equation, impulse and momentum; work, power and energy; balancing and vibration.

**MECH- 593 Mechanics Of Machinery Ii** (3.00 cr.)

Repeatable: No

Graphical analysis and synthesis of linkages, cams, gear trains, displacement, velocity, acceleration and dynamic forces.

**MECH- 729 Product Development And Design** (3.00 cr.)

Repeatable: No

Theory and application of the product development and design process. Principles of efficient engineering processes and management structures that support product design. Emphasis on structured approaches that insure constraints are properly defined and met. Includes major project.

**MECH- 749 Cooperative Education Experience** (1.00 - 8.00 cr.)

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**MECH- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**MFGE – Manufacturing Engineering**

**MFGE- 551 Manufacturing Process Engineering I** (3.00 cr.)

Repeatable: No

Understanding, analysis, and control of machining and metal forming processes. Emphasis is given to process characteristics of heat transfer, process forces and pressures, and machine tool dynamics. Sheet metal designs utilizing solid modeling software. Instructor's consent

**MFGE- 552 Manufacturing Process Engineering II** (3.00 cr.)

Repeatable: No

Analysis of polymer and metal behavior in processing; mechanics of processing; identification of appropriate fabrication processes; diagnosis of process related problems; mathematical modeling of process designs.

**MFGE- 595 Seminar** (1.00 - 2.00 cr.)

Repeatable: No

(Title will reflect specific manufacturing content.) Designed to upgrade effectiveness of teachers or secondary school manufacturing content.

**MFGE- 600 Intro to FAB Lab: How to Make Anything** (1.00 cr.)

Repeatable: No

Introduction to personal digital fabrication using the UW-Stout Discovery Center BAB Lab, modeled after the FAB Lab at the Massachusetts Institute of Technology Center for Bits and Atoms. Use of laser cutters, 3-D printers, vinyl cutters, SHOPBot CNC routers, and desk milling machines and other digital and analog tools to fabricate and test design projects. Explore a variety of fields including graphic design, art, business, computer-assisted design, physical and natural science, mathematics, and engineering.

**MFGE- 615 Machine Vision And Robotics** (2.00 cr.)

Repeatable: No

Design of machine vision and industrial robotic applications, including cost justification.

**MFGE- 640 Manufacturing System Design And Simulation** (3.00 cr.)

Repeatable: No

Design of manufacturing systems using contemporary methods and philosophies. Modeling and comparison of system designs using simulation software. Interpretation of experimental simulation results to evaluate system design alternatives. Preparation of technical reports summarizing projects.

**MFGE- 665 Reliability Engineering** (3.00 cr.)

Repeatable: No

A practical introduction to reliability engineering with the opportunity for application. Topics covered include reliability need, calculations, prediction and modeling, and test design. Statistical proficiency required.

**MFGE- 690 Manufacturing System Design Problems** (1.00 - 3.00 cr.)

Repeatable: No

Manufacturing system design through the application of previously learned principles and techniques. Issues to be addressed include: product design for manufacturability, process and tooling design and fabrication, system layout and equipment configuration, information and control architecture, implementation of quick-changeover strategies, task sequencing and scheduling, and simulation and evaluation of alternatives.

**MFGE- 707 Field Project Formulation** (1.00 cr.)

Repeatable: No

Critical reviews of manufacturing engineering field problems and analyses. Discuss, identify, and write a detailed, statistical, and realistic data collection method in preparation for the field problem. Instructor's consent

*Prerequisite: INMGT-625 (may be taken concurrently)*

**MFGE- 735 Field Problem In Manufacturing Engineering** (3.00 cr.)

Repeatable: No

Identification, selection and completion of a problem in manufacturing engineering culminating in a Plan B paper. Application of advanced manufacturing engineering topics. Admission into the MS in Manufacturing Engineering required. Department consent

*Admission to MS in Manufacturing Engineering*

**MFGE- 737 Seminar in Manufacturing Engineering** (3.00 cr.)

Repeatable: No

Engaging students in original, critical, and advanced level presentation-discussion on current manufacturing topic and/or research related topic or outreach industry project implementation. The seminar topic is determined by the advising faculty and the students based on faculty expertise and students interest.

**MFGE- 749 Cooperative Education Experience** (1.00 - 8.00 cr.)

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring,

supervised work periods, each one building and expanding on the previous.

Department consent

**MFGE- 753 Polymer Engineering** (3.00 cr.)

Repeatable: No

Advanced analysis of polymer behavior in processing; prediction of mechanical behavior; analysis of polymer failure; analysis of polymer electrical and optical properties.

Instructor's consent

*Prerequisite: take MFGE-552 or obtain instructor consent*

**MFGE- 770 Thesis-Manufacturing Engineering** (2.00 - 6.00 cr.)

Repeatable: No

Conduct an independent research in manufacturing engineering under the direction of research adviser. Identify, develop and outline, conduct literature review, develop a plan and method, conduct research, interpret findings, and submit final report.

Students may enroll for 2-6 credits hours in various semesters with a final total of six credits.

*Prerequisite: take MFGE-707*

**MFGE- 771 Emerging Manufacturing Materials** (3.00 cr.)

Repeatable: No

Theory and application of new and emerging materials in manufacturing. Principles of materials design and development. Properties and behavior of new and emerging materials and their enabling role in industry. Undergraduate courses in chemistry and engineering materials recommended.

**MFGE- 792 Special Projects In Manufacturing Engineering** (2.00 - 6.00 cr.)

Repeatable: No

Substantive study and activity for specialists in the industry and technology field to include library work, field observation, laboratory work planned by the student and approved and supervised by a faculty consultant. Preparation of a technical report. May be repeated for a maximum of six semester credits.

Department consent

*Prerequisite: take TECED-739*

**MFGE- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**MFGT – Manufacturing Technology**

**MFGT- 503 Computer Aided Manufacturing** (3.00 cr.)

Repeatable: No

Justification for and application of computer assistance in manufacturing process; machine process control, inventory and materials handling, robotics and automated assembly, product design and part grouping in relation to total manufacturing operation.

**MFGT- 515 Metallurgy** (3.00 cr.)

Repeatable: No

Properties of crystalline solids, production of iron and steel, the carbon-iron equilibrium diagram, principles of heat treatment, properties of ferrous alloys. Production, properties, and theory of the most important non-ferrous metals and alloys.

**MFGT- 530 Plastics For Teachers** (2.00 cr.)

Repeatable: No

Overview of plastics as a manufacturing material. Focus on plastics processes: injection molding, blow molding, extrusion, thermoforming, and reinforced resin composites. Includes lab projects for the technology education classroom and tours to plastic processing industries.

**MFGT- 545 Design And Simulation Of Manufacturing Systems** (3.00 cr.)

Repeatable: No

Design of manufacturing systems using contemporary methods and philosophies. Modeling and comparison of system designs using simulation software. Interpretation of experimental simulation results to evaluate system design alternatives. Preparation of technical reports summarizing projects. Recommended: statistical knowledge.

**MFGT- 600 Workshop:** (1.00 - 3.00 cr.)

Repeatable: Yes

Special topics manufacturing, providing hands-on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

**MFGT- 749 Cooperative Education Experience** (1.00 - 8.00 cr.)

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**MFGT- 792 Special Projects In Manufacturing Technology** (2.00 - 6.00 cr.)

Repeatable: No

Substantive study and activity for specialists in the industry and technology field to include library work, field observation, laboratory work planned by the student and approved and supervised by a faculty consultant. Preparation of a technical report. May be repeated for a maximum of six semester credits.

*Prerequisite: take TECED-739*

**MFGT- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **MFT – Marriage & Family Therapy**

### **MFT- 735 Investigations (2.00 cr.)**

Repeatable: No

A research experience which culminates in a Plan B paper.

Department consent

*Prerequisites: take EDUC-740 or MFT-765*

### **MFT- 740 Cultural Competence In Family Therapy (3.00 cr.)**

Repeatable: No

Cultural competence and its application in MFT. Exploration of systems of privilege and oppression and their link to interpersonal dynamics. Self-examination of cultural assumptions. Practice in working with difference.

### **MFT- 744 Psychometric Aids In Couples And Family Therapy (2.00 cr.)**

Repeatable: No

Understanding and applying psychometric instruments in MFT context. Includes descriptive statistics, reliability, measurement error, validity, interpretation, selection, administration, cultural diversity, disabilities.

### **MFT- 745 Treating Drug Abuse, Intimate Violence And Self-Harm (3.00 cr.)**

Repeatable: No

Assess and treat intimate violence (emotional, physical, sexual, neglect), substance abuse and self-harm. Children, adolescents, adults, couples and families.

### **MFT- 750 Foundations Of Couples And Family Therapy (3.00 cr.)**

Repeatable: No

Study of early theories of couples and family therapy. Assessment and treatment for children, adolescents, adults, couples, parents and families.

### **MFT- 751 Contemporary Couples And Family Therapy (3.00 cr.)**

Repeatable: No

Study of contemporary theories of couples and family therapy. Assessment and treatment for children, adolescents, adults, couples, parents and families.

### **MFT- 752 Couples Therapy And Sex Therapy (3.00 cr.)**

Repeatable: No

Therapeutic models, assessment and interventions for working with couples. Dynamics of couple relationships including communication, infidelity, emotional regulation, conflict management, and sexual interaction.

### **MFT- 755 Professional Issues In Couples And Family Therapy (3.00 cr.)**

Repeatable: No

Exploration of the issues in the development of professional skills, attitudes and identity in the area of couples and family therapy.

*Prerequisite: take MFT-750*

### **MFT- 765 Research In Psychotherapy (3.00 cr.)**

Repeatable: No

Basic research methods in the evaluation of therapy effectiveness.

Application of research skills by demonstrating ability to critique published studies and to develop a research proposal.

### **MFT- 793 Couples And Family Therapy Practicum I (4.00 cr.)**

Repeatable: Yes

Preparation for professional couples and family therapy services through seminar discussions, observation, and supervised counseling experience.

Department consent

*Must be admitted to the M.S. in Marriage and Family Therapy*

### **MFT- 794 Couples And Family Therapy Practicum II (4.00 cr.)**

Repeatable: Yes

Sequel to MFT-793. Continuing preparation for professional couple and family therapy services through seminar discussions, observation, and supervised therapy.

*Prerequisite: take MFT-793*

### **MFT- 795 Couples & Family Therapy Practicum (3.00 cr.)**

Repeatable: No

Preparation for professional couple and family therapy services through seminar discussions, observation, and supervised therapy.

Department consent

*Must be admitted to the M.S. in Marriage and Family Therapy*

### **MFT- 795 Marriage & Family Therapy Practicum (1.00 - 3.00 cr.)**

Repeatable: No

The study and application of family theory in a clinical setting.

Department consent

*Must be admitted to the M.S. in Marriage and Family Therapy*

### **MFT- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

## **MSCS – Mathematics, Statistics and Computer Science**

### **MSCS- 590 topics (1.00 - 3.00 cr.)**

Repeatable: Yes

Topics of current importance in applications of mathematics to problems in business, industry, government or society. May be repeated for additional credit with consent of program director.

### **MSCS- 590 Fourier Transform and Applications (3.00 cr.)**

Repeatable: No

Fundamental theory of Fourier transform with applications to a variety of topics. Traditional definition of Fourier series, the modern functional definition of Fourier transform and its properties. Discrete and fast Fourier transform. Convolution and Shah-function and their applications to Fourier transform.

*Prerequisites: take Math-720 and Math-755*

**MSCS- 747 Scientific Computing (3.00 cr.)**

Repeatable: No

Analysis and development of the most common techniques used in the efficient numerical solution of problems in applied mathematics, statistics, science and engineering focusing on computational methods in linear algebra and nonlinear systems. Applications from a wide variety of fields including engineering, computer science, and physics.

*Prerequisite: Take MATH-720*

**MSCS- 791 Field Project in Industrial Mathematics I (3.00 cr.)**

Repeatable: No

First course in a two-semester sequence. Application of a variety of mathematical tools to conduct original research on a project provided by employers, professors, companies, agencies, or organizations. Synthesis of mathematical modeling, numerical computing, and/or data analysis.

*Prerequisite: take MATH-710*

**MSCS- 792 Field Project in Industrial Mathematics II (3.00 cr.)**

Repeatable: No

Second course in a two-semester sequence. Application of a variety of mathematical tools to conduct original research on a project provided by employers, professors, companies, agencies, or organizations. Synthesis of mathematical modeling, numerical computing, and/or data analysis.

*Prerequisite: take MSCS-791*

**MSCS- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**PHOTO – Photography****PHOTO- 505 Photo Processes (3.00 cr.)**

Repeatable: No

Advanced monochromatic photography: aesthetics, advanced theory, view-camera techniques, studio lighting, materials and equipment selection, sheet-film processing, specialized processes and techniques. A special course fee applies.

**PHOTO- 510 Introduction to Photographic Lighting (3.00 cr.)**

Repeatable: No

Introduction to the essential concepts of lighting for still and moving image photography. Emphasis is placed on the application and control of natural and artificial light in studio and location photography. A DSLR camera with full manual control in still and video capture modes is required.

**PHOTO- 511 Advertising And Public Relations Photography (3.00 cr.)**

Repeatable: No

A survey of advertising and public relations photography trends and practices. The relationship between photography, typography and design, image capture, manipulation, file management, workflow,

output, as well as identifying and meeting client needs and expectations are stressed. A digital SLR camera is required.

**PHOTO- 530 Introduction to Video Production (3.00 cr.)**

Repeatable: No

Introduction to essential concepts and techniques of video production. Emphasis is placed on preproduction and preparation for production, writing proposals and treatments, story-boarding and developing a workflow appropriate to the project. Students develop camera operation, audio, lighting, directing, producing and editing skills. A DSLR camera with full manual controls in still and video capture modes is required.

**PHOTO- 535 Film-History And Appreciation (3.00 cr.)**

Repeatable: No

Evolution of motion picture film as medium of mass communication and aesthetic expression; contributions of noted film producers.

**PHOTO- 540 History Of Photography (3.00 cr.)**

Repeatable: No

A survey of the scientific and aesthetic development of photography from its beginnings to the recent practices of photographic technologies in the context of post-modernity. Examine the diversity of styles, techniques, methods, and ideologies of selected photographers focusing on their contributions and influences in advertising, art, fashion, communication technology and pop culture.

**PHOTO- 575 Product Photography (3.00 cr.)**

Repeatable: No

A survey of the technical and conceptual aspects of still and moving image photography of manufactured goods and products. Emphasis is placed on photographing studio and table still life sets. The importance of lighting for scale, as well as lighting varied surfaces will be explored. A DSLR camera with full manual controls in still and video capture modes is required.

**PHOTO- 611 Photojournalism And Documentary Photography (3.00 cr.)**

Repeatable: No

A survey of the technical and conceptual aspects of photojournalism and documentary photography trends and practices. The importance of still and moving images as conveyors of information and influence on public opinion is emphasized. Ethical and moral considerations, freedom of the press and the public's right to know are stressed. A survey of the technical and conceptual aspects of still and moving image photography of manufactured goods and products. Emphasis is placed on photographing studio and table still life sets. The importance of lighting for scale, as well as lighting varied surfaces will be explored. A DSLR camera with full manual controls in still and video capture modes is required.

**PHOTO- 612 Nature and Landscape Photography (3.00 cr.)**

Repeatable: No

A survey of the technical and conceptual aspects of nature and landscape, still and moving image photography trends and practices. Emphasis on the application of appropriate techniques and

equipment for field conditions. A special course fee applies. A DSLR camera with full manual controls in still and video capture modes is required.

**PHOTO- 615 Advertising Photography (3.00 cr.)**

Repeatable: No

A survey of the technical and conceptual aspects of still and moving image advertising photography trends and practices. The relationship between marketing, design and photography in communicating with target audiences through cross-channel media are stressed. A DSLR camera with full manual control in still and video capture modes is required.

**PHOTO- 621 Architectural and Interior Photography (3.00 cr.)**

Repeatable: No

A survey of the technical and conceptual aspects of architectural and interior still and moving image photography trends and practices. Emphasis on the application of appropriate techniques and equipment for field/location conditions. A DSLR camera with full manual control in still and video capture modes is required.

**PHOTO- 625 Corporate Communications and Public Relations Photography (3.00 cr.)**

Repeatable: No

A survey of the technical and conceptual aspects of corporate communications and public relations, still and moving image photography trends and practices. The relationship between marketing, corporate communications and public relations photography in influencing target audience opinion through cross-channel media are stressed. A DSLR camera with full manual control in still and video capture modes is required.

**PHOTO- 630 Video/Cinema Practicum (3.00 cr.)**

Repeatable: No

Cross discipline teams explore a selected topic(s) through the completion of professional level video/cinema project(s), from concept to distribution digital media.

*Prerequisite: take MEDIA-530*

**PHOTO- 641 Fashion And Glamour Photography (3.00 cr.)**

Repeatable: No

A survey of the technical and conceptual aspects of fashion and glamour still and moving image photography trends and practices. Emphasis on directing professional/non-professional talent/models and creative support and the importance of concept and design in creating effective images. A DSLR camera with full manual control in still and video capture modes is required.

**PHOTO- 695 Professional Portfolio Development (3.00 cr.)**

Repeatable: No

Capstone experience for the Applied Photography minor. Students fine tune their direction and concentrate on the area they intend to specialize in their professional career. Students design and produce a portfolio to be evaluated by representative professionals. Standards of professional practice are emphasized.

**PHOTO- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**PHYS – Physics**

**PHYS- 530 Science And The Fallible Mind For Educators (2.00 cr.)**

Repeatable: No

Cross-disciplinary, physical science course primarily intended for educators. Defines and examines science with a perspective on societal issues related to the human mind, consumer marketing, psychology, religion, risk and fear, global concerns, and the use and abuse of numbers.

**PKG – Packaging**

**PKG- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**PKG- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**POWER – Power**

**POWER- 595 Seminar (1.00 - 2.00 cr.)**

Repeatable: Yes

Specific content is designed to upgrade competencies of participants. Content will change to reflect current state of the art in electricity/electronics or power mechanics.

**POWER- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**POWER- 792 Special Projects In Power (2.00 - 6.00 cr.)**

Repeatable: No

Substantive study and activity for specialists in the power field to include library work, field observation, laboratory work planned by the student and approved and supervised by a faculty consultant in power technology. Preparation of a technical report. May be repeated for a maximum of six semester credits.

Department consent

**POWER- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**PSYC – Psychology**

**PSYC- 520 Psychology: Its History And Systems** (3.00 cr.)

Repeatable: No

History of psychology and influence of early competing schools of thought: structuralism, functionalism, behaviorism, Gestalt psychology, and psychodynamic psychology. Evolution to present as a diverse behavioral science with emphasis on neobehaviorism, humanistic psychology, and cognitive psychology.

**PSYC- 530 Psychology Of Learning** (3.00 cr.)

Repeatable: No

A course designed to acquaint the student with the principles of learning drawn from experimental and theoretical psychology. These principles are demonstrated as they apply to animal and human learning. Modern viewpoints toward theories of learning are emphasized.

**PSYC- 535 Motivation And Emotion** (3.00 cr.)

Repeatable: No

An experimentally oriented introduction to the fundamental principles of motivation and emotion.

**PSYC- 540 Psychology Of Individual And Group Differences** (3.00 cr.)

Repeatable: No

Nature and extent of differences if individuals and groups are studied. Intelligence, achievement, aptitudes, interests, attitudes, and general personality are the major differences included. Race, sex, nationality, social class and age in relation to individual differences are studied.

**PSYC- 551 Children's Social Reasoning** (3.00 cr.)

Repeatable: No

Focused, in-depth study of social reasoning from birth through late childhood. Empathy, friendship, altruism, multicultural perceptions, shyness, assertiveness, aggression, loneliness, morality, values, and global responsibility. Heredity/environment-based theories. Assessment tools and prevention and intervention programs.

**PSYC- 552 Adolescent Psychology** (3.00 cr.)

Repeatable: No

The physical, emotional, social, moral, and intellectual development of secondary school youth.

**PSYC- 561 Abnormal Psychology** (3.00 cr.)

Repeatable: No

A study of more serious mental disturbances. Emphasis on the growing importance of mental disorders and on their early detection and referral is studied.

**PSYC- 570 Interpersonal Effectiveness Training** (3.00 cr.)

Repeatable: No

Training in effective interpersonal communication attitudes and skills for creating healthy relationships including self-awareness/self-expression; understanding others' communication; assertive rights/responsibilities coping with difficult emotions; conflict management/resolution and mediation; collaborative problem solving and teamwork; gender differences in communication style; effectiveness in relationships with culturally diverse individuals; and effectiveness in online relationships.

**PSYC- 571 Introduction To Health Psychology** (3.00 cr.)

Repeatable: No

Principles of psychology applied to the promotion of health and wellness; prevention of disease, injury and premature death; psychological treatment of illness; improvement of health care; and formation of health policies.

**PSYC- 575 The Psychology Of Marriage And The Family** (2.00 cr.)

Repeatable: No

A study of the interpersonal relations involved in dating, mating and family collaboration with growing awareness of patterns for self-integration.

**PSYC- 577 Consumer Psychology** (3.00 cr.)

Repeatable: No

Psychological principles and theories from the areas of motivation, perception, learning, attitude, information processing, personality, groups, organizational psychology, and environmental psychology are applied to the understanding of consumer behavior, consumer problems, and their solution.

**PSYC- 579 Public Relations** (2.00 cr.)

Repeatable: No

Introduction to public relations in industry and education including community relations, employee relations, customer relations, media relations, tools of public relations, two-way communications, and special publics.

**PSYC- 582 Human Resource Management** (3.00 cr.)

Repeatable: No

Organization and coordination of personnel practices and methods. Consideration given to communication, employment, orientation and training, working conditions, supervision, performance evaluation, collective bargaining, salary administration, health and recreation.

**PSYC- 591 Applied Psychophysiological Methods** (3.00 cr.)

Repeatable: No

Theory, methods, laboratory procedures, and applications of physiological responses to psychological stimuli.

**PSYC- 601 Workshop: Special topics In Psychology** (1.00 - 3.00 cr.)

Repeatable: Yes

Current specialized topics studied in a small group setting utilizing experimental activities.

**PSYC- 603 Management Of Employee Reward Systems (3.00 cr.)**

Repeatable: No

Review of issues in the reward and compensation of employees and of systematic methods for the determination of employee wages, incentives and benefits. Psychological theories of motivation, external equity, job analysis, identifying compensable factors used in job evaluation, comparable worth and performance appraisal, individual salary determination.

**PSYC- 632 Perception (3.00 cr.)**

Repeatable: No

This course serves as an introduction to human perception. The content of the course is structured around an information processing model, with the sensory and memory facilities considered as information systems. The student will analyze perceptual research, become familiar with classical and modern psychophysical techniques and conduct experimentation in human information processing.

**PSYC- 642 Cognitive Processes (3.00 cr.)**

Repeatable: No

Cognitive theories of attention, memory, language, reasoning and problem solving with applications to fields of education, vocational rehabilitation, gerontology, forensic, clinical and counseling psychology.

**PSYC- 685 Recruitment & Selection Of Human Resources (3.00 cr.)**

Repeatable: No

In-depth examination of the processes involved in the design and implementation of procedures for selecting employees; the impact these procedures have on the organization; and recruitment, job analysis, testing methods, legal issues, selection strategies, career development.

**PSYC- 701 Seminar On Diversity In The Workplace (1.00 cr.)**

Repeatable: No

Application of problem solving skills and strategies to issues regarding diversity in the context of applied psychology.

**PSYC- 702 Ethics In Applied Psychology (1.00 cr.)**

Repeatable: No

Ethical principles and codes of conduct for psychologists, with application to work settings encountered by applied psychologists. Consideration to ethical codes of conduct in various professions, and the role of culture, personality and social factors, and major life events in conceptualizing ethical standards.

**PSYC- 707 Applied Social Psychology (3.00 cr.)**

Repeatable: No

Principles and methods derived from social psychology applied to problems and issues in a variety of settings.

**PSYC- 708 Psychosocial Intervention (3.00 cr.)**

Repeatable: No

Theories and methods of planned change. Training of effective change agents.

**PSYC- 710 Applied Psychology Seminar (1.00 cr.)**

Repeatable: Yes

Field of applied psychology and the M.S. in Applied Psychology program. Critical thinking and professional writing skill development. Thesis process, professional ethics, diversity issues in applied psychology, and professional development extracurricular activities. Instructor's consent

**PSYC- 711 Applied Psychology Seminar II (1.00 cr.)**

Repeatable: No

Preparation for thesis/field problem. Applying critical thinking and professional literature review skills to the thesis/field problem. Internship readiness. Professional writing skills. Ethics and diversity in applied psychology. Extracurricular professional development.

*Prerequisite: take PSYC-710*

**PSYC- 712 Applied Psychology Seminar III (1.00 cr.)**

Repeatable: No

Faculty and peer support for pragmatic issues related to independent research project completion and internship obtainment. Job-seeking skills; professional development through self-assessment and documentation of applied psychology-related learning. Ethical and diversity-related issues in applied psychology.

*Prerequisite: take PSYC-711*

**PSYC- 720 Introduction to Evaluation and Institutional Research (2.00 cr.)**

Repeatable: No

Theoretical approaches to fields of Evaluation and Institutional Research, evaluation competencies, and personal philosophy of evaluation.

**PSYC- 720A Overview of Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Application of evaluation to programs, processes and products; Institutional Research and its application in education, relationship between evaluation and institutional research.

**PSYC- 720B Responsibilities of Institutional Research Offices (0.20 cr.)**

Repeatable: No

Responsibilities of Institutional Research offices, similarities and differences in the responsibilities of different offices.

**PSYC- 720C Overview of Evaluation Approaches and Theories (0.10 cr.)**

Repeatable: No

Major theories and approaches that guide evaluation work; similarities and differences among them.

**PSYC- 720D Utilization-Focused Evaluation (0.20 cr.)**

Repeatable: No

Theory and application of utilization-focused evaluation; basic questions and considerations for use; contrast with other approaches and theories.



**PSYC- 720E Goal Free Evaluation (0.20 cr.)**

Repeatable: No

Theory and application of goal free evaluation; basic questions and considerations for use; contrast with other approaches and theories.

**PSYC- 720F Context Input Process Product Evaluation (0.20 cr.)**

Repeatable: No

Theory and application of context input process product evaluation; basic questions and considerations for use; contrast with other approaches and theories.

**PSYC- 720G Constructivist/4th Generation Evaluation (0.20 cr.)**

Repeatable: No

Theory and application of constructivist/4th generation evaluation; basic questions and considerations for use; contrast with other approaches and theories.

**PSYC- 720H Deliberative/Democratic Evaluation (0.20 cr.)**

Repeatable: No

Theory and application of deliberative/democratic evaluation; basic questions and considerations for use; contrast with other approaches and theories.

**PSYC- 720I Empowerment Evaluation (0.20 cr.)**

Repeatable: No

Theory and application of empowerment evaluation; basic questions and considerations for use; contrast with other approaches and theories.

**PSYC- 720J Methods and Social Justice Evaluation (0.10 cr.)**

Repeatable: No

Theory and application of methods and social justice evaluation; basic questions and considerations for use; contrast with other approaches and theories.

**PSYC- 720K Evaluation Competencies Overview (0.20 cr.)**

Repeatable: No

Competencies for the successful evaluator or institutional research professional; determine proficiency levels, and develop a professional development plan.

**PSYC- 721 Evaluation and Institutional Research: Ethics and Practice (1.00 cr.)**

Repeatable: No

Professional and ethical standards within evaluation and institutional research; institutions which oversee ethical practice of evaluation. Cultural competence and reflective practice for professional development.

**PSYC- 721A Professional Evaluation Standards (0.20 cr.)**

Repeatable: No

Need for and application of American Evaluation Association Guiding Principles and Program Evaluation Standards to evaluation and research settings.

**PSYC- 721B Ethics in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Ethical codes for research and evaluation and strategies for addressing professional and ethical issues.

**PSYC- 721C Understanding Responsible Conduct of Research (0.20 cr.)**

Repeatable: No

Responsible preparation and conduct of research; role of the Institutional Review Board in evaluation and research. Procedures for gaining Institutional Review Board approval for a project.

**PSYC- 721D Cultural Competence in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Impact of cultural perspective on the conduct of evaluation and research; assess how personal cultural perspective influences professional practice.

**PSYC- 721E Reflective Practice in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Reflective practice in evaluation and institutional research to support professional growth.

**PSYC- 722 Project Management in Evaluation and Institutional Research (2.00 cr.)**

Repeatable: No

Evaluation project management. Identify evaluation team and stakeholder roles; communication, collaboration and conflict management skills; evaluation budget and management plan; deliver evaluation results; develop a professional development plan.

**PSYC- 722A Stakeholders, Roles, and Responsibilities (0.40 cr.)**

Repeatable: No

Roles and responsibilities of stakeholders in an evaluation setting.

**PSYC- 722B Communication and Collaboration with Stakeholders (0.20 cr.)**

Repeatable: No

Techniques for communicating and collaborating with internal and external stakeholders in an evaluation project.

**PSYC- 722C Budgeting for an Evaluation (0.30 cr.)**

Repeatable: No

Costs associated with conducting evaluation; create detailed, accurate budgets for an evaluation project.

**PSYC- 722D Managing Tasks and Timelines in Evaluation and Institutional Research (0.30 cr.)**

Repeatable: No

Evaluation project timelines; developing and managing project tasks in the evaluation process.

**PSYC- 722E Conflict Management in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Effective communication with team members and project stakeholders.

**PSYC- 722F Reporting in Evaluation and Institutional Research (0.40 cr.)**

Repeatable: No

Communication of evaluation data (quantitative and qualitative) to stakeholders and other audiences; approaches for written reports and presentations.

**PSYC- 722G Professional Growth in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Professional development plans for evaluators; identifying short-term and long-term goals.

**PSYC- 723 Research Methods in Evaluation and Institutional Research (2.00 cr.)**

Repeatable: No

Research methods for evaluations. Evaluability assessments, identification of evaluation questions and development of evaluation plans. Quantitative, qualitative and mixed method approaches and data collection strategies. Literature reviews and logic models. Contextual and political issues in evaluation. Data visualization for evaluation results; turning results into action.

**PSYC- 723A Evaluability Assessment (0.20 cr.)**

Repeatable: No

Evaluability assessments; assessing programs for scope and feasibility as evaluation.

**PSYC- 723B Identifying Evaluation Questions (0.20 cr.)**

Repeatable: No

Evaluation questions based on stakeholder feedback, program goals and objectives; questions are relevant, measurable, and useful.

**PSYC- 723C Designing an Evaluation Plan (0.20 cr.)**

Repeatable: No

Basic evaluation plans to address identified evaluation questions; define the goals, boundaries, and scope of the evaluation.

**PSYC- 723D Research Design in Evaluation and Institutional Research (0.40 cr.)**

Repeatable: No

Quantitative and qualitative research designs; mixed-methods approaches.

**PSYC- 723E Program Theory: Logic Modeling/Program Theory of Change (0.20 cr.)**

Repeatable: No

Logic models for evaluation; program theory of change for evaluation.

**PSYC- 723F Literature Reviews in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Literature reviews for use in evaluation; approach and application of appropriate peer-reviewed sources.

**PSYC- 723G Sampling in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Random and convenience sampling techniques; sampling methods for representativeness and generalizability.

**PSYC- 723H Data Visualization in Evaluation and Institutional Research (0.20 cr.)**

Repeatable: No

Data visualization techniques based on evaluation context and target audience; enhance client comprehension of results.

**PSYC- 723I Turning Results into Action (0.20 cr.)**

Repeatable: No

Strategies for designing and presenting evaluation results in order to support the client's use of the results.

**PSYC- 724 Data Collection in Evaluation and Institutional Research (1.00 cr.)**

Repeatable: No

Qualitative and quantitative methods of data collection; focus group, survey, and observation data collection methods.

**PSYC- 724A Focus Groups in Evaluation and Institutional Research (0.40 cr.)**

Repeatable: No

Focus group method for evaluations; appropriate use, strengths, and weaknesses.

**PSYC- 724B Surveys in Evaluation and Institutional Research (0.40 cr.)**

Repeatable: No

Survey development and administration for evaluations; appropriate use, strengths, and weaknesses.

**PSYC- 724C Observation Studies in Evaluation (0.20 cr.)**

Repeatable: No

Observational data collection techniques for evaluation; appropriate use, strengths, and weaknesses.

**PSYC- 725 Data Analysis in Evaluation and Institutional Research (1.00 cr.)**

Repeatable: No

Quantitative and qualitative data analysis techniques; information triangulation, and data interpretation. Data management; store and manage data securely.

**PSYC- 725A Quantitative Analysis in Evaluation/Institutional Research (0.30 cr.)**

Repeatable: No

Basic quantitative data analysis; descriptive and inferential statistics,

selection of appropriate statistical methods for different types of data; data analysis software.

**PSYC- 725B Qualitative Data Analysis in Evaluation and Institutional Research (0.30 cr.)**

Repeatable: No

Basic qualitative data analysis; thematic analysis and coding of qualitative data.

**PSYC- 725C Managing Evaluation and Institutional Research Data (0.20 cr.)**

Repeatable: No

Data management and storage; strategies for confidentiality, promoting accuracy, and secure storage.

**PSYC- 725D Synthesizing Results: Triangulation (0.20 cr.)**

Repeatable: No

Mixed methods for evaluations; triangulate data from multiple sources in order to draw inferences about a subject.

**PSYC- 726 Evaluation Applications (2.00 cr.)**

Repeatable: No

Practical issues in evaluation; various evaluation settings; appropriate reporting techniques; assess information from previously conducted evaluations; build evaluation capacity in stakeholders; Request for Proposals and grant proposals; evaluation related jobs.

**PSYC- 726A Evaluation Settings (0.30 cr.)**

Repeatable: No

Evaluation settings and purposes; role of the evaluator and the interdisciplinary nature of evaluation; matching evaluation methods to organizational needs.

**PSYC- 726B Reporting and Interpreting Evaluation Results (0.20 cr.)**

Repeatable: No

Reporting evaluation results, provide interpretations and recommendations; present clear, accurate, and relevant reports to clients.

**PSYC- 726C Dissemination Plans for Evaluation (0.20 cr.)**

Repeatable: No

Customized reporting for evaluation. Interpret and meet the information needs of various audiences; dissemination plans.

**PSYC- 726D Supporting Use of the Results (0.20 cr.)**

Repeatable: No

Personal and organizational issues that hinder the use of evaluation results; analyze topics that create distrust in results; communication for building trust in the evaluation process.

**PSYC- 726E Meta-Evaluation (0.20 cr.)**

Repeatable: No

Meta-evaluation for quality improvement and professional development.

**PSYC- 726F Capacity Building in Evaluation (0.30 cr.)**

Repeatable: No

Organizational capacity-building for evaluations; capacity-building plans.

**PSYC- 726G Responding to Requests for Proposals (0.20 cr.)**

Repeatable: No

Requests for proposals for external evaluation. Navigate proposal process; strategies for competitive proposals.

**PSYC- 726H Evaluation Plans for Grant Proposals (0.20 cr.)**

Repeatable: No

Grant writing process; identify grant opportunities; evaluation plans for grant proposals.

**PSYC- 726I Jobs in Evaluation (0.20 cr.)**

Repeatable: No

Job opportunities and professional resources in evaluation; internal evaluation positions; communicate evaluation skills during the hiring process; consulting opportunities.

**PSYC- 727 Practicum in Evaluation (3.00 cr.)**

Repeatable: No

Advanced independent evaluation field project. Project management and external consulting skill development. Independent planning, designing, implementing, and managing evaluation projects. topics covered: budgeting, evaluability, program description, program theories, project management, conflict management, and quality management.

*Prerequisites: take PSYC-720, PSYC-721, PSYC-722, PSYC-723, PSYC-724, PSYC-725, and PSYC-726*

**PSYC- 728 Institutional Research Applications (2.00 cr.)**

Repeatable: No

Practical issues in Institutional Research. Benchmarking and data sharing; assess academic programs; the role of Institutional Research in academic planning. Techniques for workload studies, enrollment management, and modeling. Role of data management systems and external reporting needs. Accountability demands and accreditation needs.

**PSYC- 728A Enrollment Management and Modeling (0.30 cr.)**

Repeatable: No

Enrollment management concepts and practices for Institutional Research; enrollment management and modeling.

**PSYC- 728B Assessment and Evaluating Academic Programs (0.20 cr.)**

Repeatable: No

Assessment and evaluation of academic programs for Institutional Research; tools and techniques for assessment and evaluation.

**PSYC- 728C Strategic Planning and Policy Analysis (0.30 cr.)**

Repeatable: No

Strategic planning for higher education. Role of institutional

research; techniques for conducting strategic planning and policy analysis, utilizing data in strategic planning.

**PSYC- 728D Benchmarking and Data Sharing in Institutional Research** (0.20 cr.)

Repeatable: No

Benchmarking and data sharing for higher education; identify peer groups and sources for comparative data.

**PSYC- 728E Workload Studies in Institutional Research** (0.20 cr.)

Repeatable: No

Workload studies for institutions of higher education; typical components and techniques for conducting workload studies.

**PSYC- 728F Data Management in Institutional Research** (0.20 cr.)

Repeatable: No

Transactional systems and relational databases in institutional research.

**PSYC- 728G Institutional Accountability** (0.20 cr.)

Repeatable: No

Accountability reporting options; national, state, and local trends, reporting requirements and emerging issues in institutional accountability; techniques for designing institutional accountability reports.

**PSYC- 728H External Reporting in IR** (0.20 cr.)

Repeatable: No

External reporting for institutional researchers; techniques for external reporting requirements.

**PSYC- 728I Accreditation and Institutional Research** (0.20 cr.)

Repeatable: No

Institutional and discipline specific accreditation; regional institutional accreditation requirements; role of institutional research in accreditation.

**PSYC- 729 Practicum in Institutional Research** (3.00 cr.)

Repeatable: No

Advanced independent institutional research field project. Project management and external consulting skill development. Independently planning, designing, implementing, and managing institutional research projects with client and instructor supervision. topics include: research design, project planning, project management, presenting in written and verbal formats, conflict management, and quality management approaches.  
*P: PSYC-720, PSYC-721, PSYC-722, PSYC-723, PSYC-724, PSYC-725 and PSYC-728*

**PSYC- 735 Applied Psychology Field Problem** (2.00 - 6.00 cr.)

Repeatable: Yes

The investigation of a problem designed to include the planning, implementation and the evaluation of a feasible solution in an applied setting. Enroll for 2, 4, or 6 credits across terms for a required total of 6 credits.

Department consent

*Prerequisite: Advanced standing in M.S. in Applied Psychology*

**PSYC- 749 Cooperative Education Experience** (1.00 - 8.00 cr.)

Repeatable: Yes

Work and study in an approved off-campus position to gain professional/business/industrial experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

*Must be a Psychology major & have a 2.5 GPA*

**PSYC- 750 Foundations of Evaluation Research** (3.00 cr.)

Repeatable: No

Examination of evaluation processes with an emphasis on foundational knowledge, skill, and attitude development.

Description of professional behaviors necessary for success in evaluation research. Skill development in planning and managing evaluations, devising appropriate data collection strategies, and pilot-testing evaluation instruments and procedures.

*Corequisite: Take PSYC-790 concurrently*

**PSYC- 751 Applications of Evaluation Research** (3.00 cr.)

Repeatable: No

Examination of evaluation processes with an emphasis on applying evaluation knowledge, skills, and attitudes. Emphasis on application of professional behavior principles and competency-based evaluation planning and design. Skill development of data collection, analysis, and interpretation on a supervised field evaluation project.

*Prerequisites: take PSYC-750 and PSYC-790*

**PSYC- 752 Practicum in Applied Psychology** (3.00 cr.)

Repeatable: No

Advanced independent applied psychology field project. Project management and external consulting skill development. Exemplary professional behavior and independently planning, designing, implementing, and managing applied psychology projects with supportive but minimal client, instructor and peer supervision.

*Prerequisite: Successful completion of annual review.*

**PSYC- 760 Evaluation Studies: Planning and Designing the Evaluation** (4.00 cr.)

Repeatable: No

Overview of evaluation types and processes. Evaluation planning and design strategies. Needs assessment. Identification of evaluation questions, models, and methods. Development of budget, management, data collection, data analysis, data storage, and communication/reporting plan. Preparation and negotiation of evaluation proposals. Identification and development of reliable and valid instrumentation.

**PSYC- 760A Describe the Item to be Evaluated** (0.20 cr.)

Repeatable: No

Definition and description of evaluands (e.g., programs, services, products to be evaluated); components of evaluand descriptions.

**PSYC- 760B Identify and Engage Stakeholders (0.20 cr.)**

Repeatable: No

Definition and description of typical evaluation stakeholders; strategies for identifying and engaging stakeholders.

**PSYC- 760C Use Research Findings to Identify Evaluation Focus and Questions (0.20 cr.)**

Repeatable: No

Identification of evaluation focus and question generation methods.

**PSYC- 760D Describe the Evaluation Strategy and Expected Outcomes (0.20 cr.)**

Repeatable: No

Overview of evaluation strategies and expected outcomes.

**PSYC- 760E Identify Models to Support the Evaluation (0.20 cr.)**

Repeatable: No

Diverse models of evaluation; discussion of important considerations in choosing evaluation models.

**PSYC- 760F Identify Designs to Support the Evaluation (0.20 cr.)**

Repeatable: No

Identification of designs to support an evaluation; discussion of important considerations in choosing evaluation designs.

**PSYC- 760G Identify Methods to Support the Evaluation (0.20 cr.)**

Repeatable: No

Identification of methods to support an evaluation; discussion of important considerations in choosing evaluation methods.

**PSYC- 760H Conduct an Effective Needs Assessment (0.20 cr.)**

Repeatable: No

Evaluation needs assessment techniques; qualities of effective needs assessments.

**PSYC- 760I Develop a Schedule and Staffing Plan (0.20 cr.)**

Repeatable: No

Approaches to evaluation scheduling and staffing; discussion of components of effective plans.

**PSYC- 760J Develop a Budget (0.20 cr.)**

Repeatable: No

Budget development processes; identification of typical components of a comprehensive evaluation budget.

**PSYC- 760K Develop a Communication and Reporting Plan (0.20 cr.)**

Repeatable: No

Items typically included in evaluation communication and reporting plans; description of methods for completing communication and reporting plans.

**PSYC- 760L Prepare and Negotiate a Proposal (0.20 cr.)**

Repeatable: No

Discussion of proposal development and preparation; description of proposal components.

**PSYC- 760M Identify Potential Data Sources (0.20 cr.)**

Repeatable: No

Strategies used to identify potential data sources; discussion of typical evaluation data sources.

**PSYC- 760N Identify and Evaluate Existing Instruments and Tools (0.20 cr.)**

Repeatable: No

Strategies used to identify and choose appropriate evaluation instruments and tools such as surveys and tests.

**PSYC- 760O Construct Reliable and Valid Instruments (0.20 cr.)**

Repeatable: No

Best practices and instrument construction and validation.

**PSYC- 760P Develop a Data Collection Plan (0.20 cr.)**

Repeatable: No

Data collection planning process; discussion of components of a comprehensive data collection plan.

**PSYC- 760Q Design Appropriate Sampling Procedures (0.20 cr.)**

Repeatable: No

Sampling strategies; discussion of steps in the sampling process; overview of ethical issues to consider when sampling.

**PSYC- 760R Address Threats to Data Trustworthiness (0.20 cr.)**

Repeatable: No

Methods used to ensure that evaluation data can be trusted; discussion of methods used to improve data integrity.

**PSYC- 760S Develop a Data Analysis and Implementation Plan (0.20 cr.)**

Repeatable: No

Processes and issues in data analysis and interpretation planning; discussion of typical components of an evaluation analysis and interpretation plan.

**PSYC- 760T Plan for Data Storage, Collection, Security and Disposal (0.10 cr.)**

Repeatable: No

Best practices for ensuring confidentiality and security of data before, during, and after an evaluation.

**PSYC- 760U Pilot Test Data Collection Instruments and Procedures (0.20 cr.)**

Repeatable: No

Pilot study processes and best practices; how to identify the most appropriate pilot-testing strategies for diverse evaluations.

**PSYC- 761 Evaluation Studies: Implementing the Evaluation Plan (4.00 cr.)**

Repeatable: No

Overview of evaluation implementation processes and issues. Collection, analysis, and interpretation of data. Conduct of effective interviews, focus groups, surveys, observations, and cost analyses. Communication of evaluation results to diverse stakeholders.

**PSYC- 761A Implement Data Collection Plan, Schedule and Budget (0.20 cr.)**

Repeatable: No

Best practices for data collection planning, including scheduling and budgeting.

**PSYC- 761B Conduct Effective Individual or Group Interviews (0.30 cr.)**

Repeatable: No

Methods for conducting individual or group interviews. Readings and discussion about appropriate context and research designs for interviews.

**PSYC- 761C Conduct Effective Focus Groups (0.30 cr.)**

Repeatable: No

Study of applications, best practices, and Do's and Don'ts for effective focus group facilitation in evaluation research.

**PSYC- 761D Conduct Effective Surveys (0.30 cr.)**

Repeatable: No

Description, examples, and practice in development of effective survey tools for evaluation research.

**PSYC- 761E Conduct Effective Observations (0.20 cr.)**

Repeatable: No

Description and discussion of appropriate methods and practices for collecting useful data through observation techniques.

**PSYC- 761F Conduct Effective Cost Analysis (0.30 cr.)**

Repeatable: No

Effective cost analysis techniques for evaluation research.

**PSYC- 761G Record Existing Data (0.20 cr.)**

Repeatable: No

Proper techniques for recording and summarizing existing evaluation data.

**PSYC- 761H Respond to Changes and Disruptions in Data Collection (0.20 cr.)**

Repeatable: No

Typical problems that arise during data collection; discussion of strategies used to adapt to changes or disruptions in data collection activities.

**PSYC- 761I Assess the Trustworthiness of Collected Data (0.20 cr.)**

Repeatable: No

Methods and best practices for assessing the trustworthiness and integrity of collected data within an evaluation.

**PSYC- 761J Use Appropriate Quantitative Analysis Procedures (0.30 cr.)**

Repeatable: No

Types of quantitative analyses; discussion of appropriate procedures of quantitative data analysis in evaluation research.

**PSYC- 761K Use Appropriate Qualitative Analysis Procedures (0.30 cr.)**

Repeatable: No

Types of qualitative and mixed methods analyses; discussion of appropriate procedures for qualitative and mixed methods evaluation data analysis.

**PSYC- 761L review and Interpret Data in an Unbiased Way (0.20 cr.)**

Repeatable: No

Techniques for reviewing and interpreting evaluation data in a fair and unbiased way; discussion of typical sources of interpretation bias.

**PSYC- 761M Draw Conclusions and Make Recommendations Based on Results (0.20 cr.)**

Repeatable: No

Strategies for drawing accurate conclusions from evaluation results and making evidence-based recommendations to evaluation stakeholders.

**PSYC- 761N Use Multiple Methods of Communicating and Reporting (0.20 cr.)**

Repeatable: No

Methods of communicating and reporting evaluation findings to interested stakeholder groups.

**PSYC- 761O Discuss and Interpret the Findings with Stakeholders (0.20 cr.)**

Repeatable: No

Best practices for discussing and interpreting evaluation findings with stakeholders in a way that allows them to make informed decisions.

**PSYC- 761P Present the Findings to Diverse Audiences (0.20 cr.)**

Repeatable: No

Appropriate methods of incorporating evaluation findings into written, oral, or visual presentations for diverse audiences.

**PSYC- 761Q Facilitate or Monitor Changes Resulting from Recommendations (0.20 cr.)**

Repeatable: No

Strategies for ensuring that evaluation recommendations are implemented, especially for longitudinal or multiyear evaluations.

**PSYC- 762 Evaluation Studies: Managing the Evaluation (1.00 cr.)**

Repeatable: No

Overview of evaluation management processes and issues. Identification and resolution of problems, techniques to address changes in plan, budget, and schedule. Methods of debriefing stakeholders and monitoring post-evaluation changes.

**PSYC- 762A Adapt the Plan, Budget and Schedule (0.10 cr.)**

Repeatable: No

Description of techniques that can be used to adapt to changing circumstances within an ongoing evaluation.

**PSYC- 762B Identify and Resolve Problems (0.10 cr.)**

Repeatable: No

Discussion of methods that can be used to identify and resolve problems with an evaluation.

**PSYC- 762C Foster Reflection and Dialogue on the Evaluation (0.20 cr.)**

Repeatable: No

Description of techniques that may be appropriate to foster reflection and dialogue on the evaluation process and evaluation outcomes.

**PSYC- 762E Keep Interested Parties Engaged and Informed (0.10 cr.)**

Repeatable: No

Description of techniques that can be used for keeping interested parties engaged in the evaluation process and informed of evaluation progress.

**PSYC- 762F Debrief Evaluation Team and Stakeholders (0.20 cr.)**

Repeatable: No

Description of best practices and methods for debriefing the evaluation team and project stakeholders to establish lessons learned from an evaluation.

**PSYC- 762G Assess Stakeholder Satisfaction with the Evaluation (0.20 cr.)**

Repeatable: No

Discussion of ways to assess stakeholder satisfaction with the evaluation process and outcomes.

**PSYC- 765 Psychology Of The Adult Learner (2.00 cr.)**

Repeatable: No

Application of contemporary perspectives in adult psychology to adult learners, primarily in employment settings. Specific strategies for trainers of adult learners, with consideration of gender, cultural, and racial factors. Group and individual differences, organizational dynamics, motivational factors, and disabilities are addressed.

**PSYC- 770 Thesis-Applied Psychology (2.00 - 6.00 cr.)**

Repeatable: Yes

Independent research under direction of thesis advisor and committee. Selection of research questions/problems, review of literature, methodology development, conduct of research, interpretation of findings, and preparation of final paper according to thesis standards.

Department consent

*Prerequisite: take PSYC-791*

**PSYC- 771 Psychological Foundations of Health Promotion (3.00 cr.)**

Repeatable: No

Theoretical issues related to health promotion. Psychosocial determinants of health and disease. Theories of health behavior. Intervention theory and development. Health care administration and policy. Ethical and diversity considerations. Ecological systems perspective for conceptualizing health promotion.

**PSYC- 772 Psychological Applications of Health Promotion (3.00 cr.)**

Repeatable: No

Applies knowledge and skills from PSYC-771. Focus on health promotion intervention and research/evaluation. Experiential training in applying psychological principles to health promotion. Implications of health promotion on health care policy and administration. Introduces behavioral epidemiology and health services research.

*Prerequisite: take PSYC-771*

**PSYC- 781 Personnel Psychology (3.00 cr.)**

Repeatable: No

Research and applications in personnel psychology. Topics range from job analysis to personnel selection and assessment methods, and training designs. Diversity considerations in both ethical and legal context.

**PSYC- 782 Organizational Psychology (3.00 cr.)**

Repeatable: No

Research and applications in organizational psychology. Issues in raising employee performance, improving relationships, and employee well-being within organizations. Influence of diversity and culture on organizational behavior.

*Prerequisite: take PSYC-781*

**PSYC- 790 Research Design and Analysis I (3.00 cr.)**

Repeatable: No

Research design with emphasis on descriptive and univariate analyses to solve applied problems in psychology. Selection of appropriate designs and data analysis methods. Includes statistical software applications, hypothesis testing, and interpretation.

**PSYC- 792 Research Design and Analysis II (3.00 cr.)**

Repeatable: No

Research design with emphasis on qualitative and mixed methods designs and correlational and multivariate analyses to solve applied problems in psychology. Selection of appropriate designs and data analysis methods. Includes statistical software applications, hypothesis testing, and interpretation.

*Prerequisite: take PSYC-790*

**PSYC- 793 Psychometrics of Test Construction (3.00 cr.)**

Repeatable: No

Assumptions, models and applications of psychometric measurement in business and evaluation settings. Test construction, item design and construction, item analysis, measure reliability and validity. Prediction and measurement of attitudes and opinions.

**PSYC- 794 Marriage & Family Therapy Prac (4.00 cr.)**

Repeatable: No

**PSYC- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**PSYC- 875 Psychoeducational Intervention Practicum (3.00 cr.)**

Repeatable: No

Psychoeducational intervention strategies for promoting healthy individuals, families, organizations and communities. Designing, implementing, and evaluating psychoeducational learning experiences.

*Prerequisite: take PSYC-708, PSYC-771, and PSYC-871*

**PSYC- 890 Applied Psychology Internship (1.00 - 5.00 cr.)**

Repeatable: Yes

Supervised field experience in an applied psychology role involving the practice and integration of professional skills and knowledge developed in other courses. (Repeatable up to 5 credits.)

Department consent

*Prerequisite: Advanced standing in M.S. in Applied Psychology*

**RC – Risk Control**

**RC- 501 Seminar (1.00 - 2.00 cr.)**

Repeatable: Yes

(Title will reflect specific business or management content.) Current topics in business and industrial management to meet specific needs of students enrolled.

**RC- 571 Alcohol, Drugs And Accident Prevention (3.00 cr.)**

Repeatable: No

Impact of alcohol and drug use on accident prevention programs; current efforts to rehabilitate alcohol and drug abusers.

Department consent

**RC- 572 Behavior Approach To Accident Prevention (3.00 cr.)**

Repeatable: No

Behavioral aspects of accident prevention from physiological, psychological, sociological and cultural perspectives; identifying, understanding and modifying attitudes and behavior.

Department consent

**RC- 581 Principles of Occupational Risk Control/Safety (2.00 - 3.00 cr.)**

Repeatable: No

Introduction to risk control/safety approaches intended to protect employee, property, legal, environmental, and financial-based assets through the development of internal practices/standards that promote the systematic anticipation, identification, analysis and control of risks that are inherent to the operation.

**RC- 583 Occupational Safety and Health Standards (3.00 cr.)**

Repeatable: No

Understanding and proper application of a range of regulations and standards relating to occupational safety and health.

**RC- 586 Fire Protection (2.00 cr.)**

Repeatable: No

Behavior of fire: chemistry, protection, prevention and control.

**RC- 587 Human Factors Engineering/Ergonomics (3.00 cr.)**

Repeatable: No

Physiological and psychological abilities in human/machine interface, working performance, reliability, comfort and safety; effective design of people and work environment as a cybernetic system.

**RC- 588 Construction Safety (3.00 cr.)**

Repeatable: No

Overview of construction safety and health, including identification of the most common occupational hazards associated with the construction industry. Emphasis is on evaluating hazards, choosing appropriate controls to protect workers, and developing strategies for implementing these controls into effective management systems.

**RC- 589 Fleet Risk Control Management (3.00 cr.)**

Repeatable: No

Overview of logistically-oriented management systems required to control risk in fleet operations including internal standards development/analysis, emergency response, accident analysis, loss benchmarking, driver selection and training, vehicle operation, substance abuse testing, hours of service, vehicle maintenance/inspection, route planning, cargo/personnel security, hazardous materials transportation, and regulatory controls.

**RC- 592 Construction Risk Management (3.00 cr.)**

Repeatable: No

Analysis and application of fundamental process steps for construction job site risk management.

**RC- 595 Emergency Preparedness And Response (3.00 cr.)**

Repeatable: No

Specific emergency response plans that meet federal, state and local regulations.

**RC- 640 Environmental Leadership & Sustainable Management (3.00 cr.)**

Repeatable: No

Examination and evaluation of topics related to environmental regulations, environmental leadership and sustainability management. Environmental and sustainability issues and management challenges will be analyzed and synthesized to provide a fundamental understanding of environmental regulations and management strategies to promote environmental protection and sustainability management.

*Prerequisite: Take RC-583*

**RC- 710 Industrial Hygiene Instrumentation (2.00 cr.)**

Repeatable: No

Workplace environment analysis by direct reading and integrated sampling techniques. Fundamental Chemistry background required.

*Corequisite: RC-742*

**RC- 720 Occupational Toxicology (3.00 cr.)**

Repeatable: No

Fundamental principles of toxicology as applied to human



physiology and health. Fundamental Chemistry background required.

**RC- 725 Process Hazard Management (3.00 cr.)**

Repeatable: No

Understanding and proper application of various process hazard management techniques. Identify hazards, assess their risk frequency and severity; define countermeasures (mitigation and elimination).

**RC- 735 Field Problem In Risk Control (2.00 - 4.00 cr.)**

Repeatable: No

An operational experience which requires identification of a technical and/or administrative problem in an occupational setting. The problem is researched, analyzed for alternative operational countermeasures, and field tested to determine the effectiveness of the solutions.

**RC- 742 Industrial Hygiene (3.00 cr.)**

Repeatable: No

Principles and techniques for recognizing, evaluating and controlling existing or potential occupational health hazards that affect employee safety and health. Fundamental Chemistry background required.

*Corequisite: RC-710*

**RC- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**RC- 781 Risk Management Applications (3.00 cr.)**

Repeatable: No

A broad spectrum of risk management topics, including the risk management process, risk assessment, and several alternative risk transfer techniques.

**RC- 782 Loss Control Systems (3.00 cr.)**

Repeatable: No

In-depth investigation, application and evaluation of current managerial practices, which are specifically and uniquely related to managing loss/risk control processes and systems.

**RC- 784 Internship-Risk Control (2.00 - 4.00 cr.)**

Repeatable: No

Full-time, supervised work and learning experience in an appropriate professional setting.

Department consent

**RC- 785 Seminar In Risk Control (2.00 cr.)**

Repeatable: No

Current topics, trends and methods in risk control are examined,

discussed and evaluated. Extensive industrial facility visits are conducted and analyzed.

**RC- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

## **RD – Design, Research & Development**

**RD- 520 Prototype Development And Model Making (3.00 cr.)**

Repeatable: No

Introduction to model making and prototype development/construction. Competencies are developed in converting design, research and development and other creative ideas into three- dimensional objects using traditional and non-traditional machining and forming techniques. Three-dimensional design problems form the core of this course.

**RD- 620 Research And Development (2.00 cr.)**

Repeatable: No

Research and development procedures applied to specific industrial material and processing problems.

*Concurrent enrollment required in RD-621*

**RD- 621 Research And Development Laboratory (1.00 cr.)**

Repeatable: No

This lab is taken in conjunction with RD-620 to allow students in technical majors to fulfill the requirements of the major research and design project.

*Concurrent enrollment required in RD-620*

**RD- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the previous.

Department consent

**RD- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

## **RDGED – Reading Education**

**RDGED- 582 Content Area Reading (2.00 cr.)**

Repeatable: No

Theoretical foundations, policy and issues impacting content area reading. Evidence based strategies for assessing and building background knowledge, developing vocabulary and comprehension, integrating writing, selecting appropriate content area texts and materials, assessing students' reading ability, and addressing needs of diverse students and struggling readers.

**RDGED- 614 Literacy Instruction and Assessment in the Primary Grades** (5.00 cr.)

Repeatable: No

Balanced approach to scientifically based literacy instruction in the primary grades to include theoretical frameworks of literacy learning, program organization, effective instructional strategies, assessments, and informal evaluation techniques as related to instructional planning. Phonemic awareness, phonics, word study, fluency, comprehension, and vocabulary instruction.

**RDGED- 701 Developmental Reading K-12** (3.00 cr.)

Repeatable: No

Concepts, methods, research, and historical developments that form the foundations of teaching reading. Pedagogical considerations, including general conditions for learning to read and write; developmental phases of reading; principles of good reading instruction; development of a personal philosophy about teaching reading as a reflective practitioner.

**RDGED- 702 Reading In The Content Areas K-12** (3.00 cr.)

Repeatable: No

Research-based teaching methods, study strategies, and technology focusing on the abilities to use language processes (reading, writing, speaking, listening) to learn subject matter across the curriculum. Consideration will be given to individual differences among readers in relationship to the cultural and political aspects of content literacy.

**RDGED- 703 Children's Literature In the Reading Program** (3.00 cr.)

Repeatable: No

Evaluation, selection, and teaching of literature in the elementary school language arts program with a focus on historically significant books, authors and illustrators writing for today's young readers.

**RDGED- 704 Young Adult Literature In The Reading Program** (3.00 cr.)

Repeatable: No

Designing strategies to build an appreciation of literature, motivating life-long readers, and using literature to encourage critical thinking across the curriculum. Topics include the nature of teen-age readers, genres of young adult literature, and its use in classroom curriculum.

**RDGED- 705 Instructional Techniques: Students With Reading Difficulties** (3.00 cr.)

Repeatable: No

Integration of psycholinguistic theory into an interactive strategic model of remedial interventions based on the foundational research of literacy acquisition in a community environment. Integrating reading, writing and spelling into an effective and viable program for struggling readers and special populations, including the learning disabled.

**RDGED- 706 Assessment And Evaluation Of Language And Reading Development** (3.00 cr.)

Repeatable: No

Interrelationship of assessment and evaluation to literacy

development including current research in reading and language arts practices. Selection, administration and interpretation of formative and summative literacy assessments for the purpose of evaluating reading and language processes.

**RDGED- 707 Reading Teacher Practicum** (3.00 cr.)

Repeatable: No

Practicum in teaching individual students, grades 1-12, with reading difficulties. Assessment of the reader's strengths and needs is followed by the implementation of individualized instruction designed to assist the child to become a better reader.

**RDGED- 720 Leading and Directing the Reading Program** (3.00 cr.)

Repeatable: No

Using theory, research data, evidence and organizational change principles to develop, lead, evaluate, and improve PK-12 literacy and professional development programs. Leadership in developing and promoting effective literacy programs for all students is emphasized.

**RDGED- 721 Supporting Literacy Instruction** (3.00 cr.)

Repeatable: No

Supporting teachers in learning about effective literacy instruction through coaching, consultation, and ongoing professional development. Special attention will be given to analyzing data and mastering the complexities of observing, modeling, and providing feedback to teachers.

**RDGED- 722 Reading Specialist Field Experience** (3.00 cr.)

Repeatable: No

Supervised school-based practicum in reading program implementation and evaluation. Emphasis is directed toward developing coaching practices, planning professional development programs, and facilitating evidence-based reading programs.

*Prerequisites: Take RDGED-720 and RDGED-721*

**REHAB – Vocational Rehabilitation**

**REHAB- 500 Special Topics In Rehabilitation** (1.00 - 2.00 cr.)

Repeatable: Yes

Special topics not available through regular courses.

Instructor's consent

**REHAB- 500G Grantsmanship In The Helping Professions** (1.00 - 2.00 cr.)

Repeatable: No

Explore grant writing in human service occupations and the necessity for such proposals as an element of change in society. Methods used to seek funding sources and evaluate requests for proposals.

**REHAB- 500N Community-Based Rehabilitation Services** (1.00 cr.)

Repeatable: No

An examination of national priorities for community-based services designed to enhance competitive employment options for severely disabled persons.

**REHAB- 505 Sign Language I (3.00 cr.)**

Repeatable: No

Basic course in manual communication with persons who are deaf. Intensive practice in expressive and receptive communication.

**REHAB- 506 Sign Language II (3.00 cr.)**

Repeatable: No

Intermediate course in manual communication with persons who are deaf. American Sign Language, increasing sign vocabulary and communication speed.

*Prerequisite: take REHAB-505*

**REHAB- 520 Rehabilitation And Chemical Dependency (3.00 cr.)**

Repeatable: No

Chemical use and abuse with emphasis on the rehabilitation of persons who are chemically dependent and the historical and sociological implications of drug usage.

**REHAB- 521 Rehabilitation Of Public Offenders (3.00 cr.)**

Repeatable: No

Emphasis on programs designed to rehabilitate persons who are public offenders and sociological issues connected with the judicial system.

**REHAB- 527 Psychiatric Rehabilitation (3.00 cr.)**

Repeatable: No

Goals and processes of psychiatric rehabilitation. Knowledge and application of skills for integrating diagnosis into planning and intervention with a focus on rehabilitation services for individuals with long-term mental illness in community-based settings.

**REHAB- 550 Independent Living (2.00 cr.)**

Repeatable: No

An overview of independent living programs in this country including evolution, goals, methods of service delivery, and management of the independent living program.

**REHAB- 551 Benefits Coordination: Practice And Application (3.00 cr.)**

Repeatable: No

Benefits Specialist role and function; rehabilitation content applications. Benefits Program requirements: process and application.

**REHAB- 555 Rehabilitation Of The Older Disabled Worker (2.00 cr.)**

Repeatable: No

Develop awareness and understanding of older disabled workers with a focus on implementing rehabilitation planning that enables continued participation in the work force or reinsertion into it following disability.

**REHAB- 560 Assistive Technology (2.00 cr.)**

Repeatable: No

Provision of technology to enhance the lives of persons with disabilities. Delivery system, legislation, and issues related to funding are examined. Specific applications in communication,

computers, mobility, and workstations and other technologies are reviewed.

**REHAB- 565 Laboratory In Rehabilitation Technology (2.00 cr.)**

Repeatable: No

Experience utilizing technological aids/devices developed for persons with disabilities. Modify/adapt equipment to meet specific functional requirements. Construct switch/control mechanisms for equipment. Develop prototype solutions to vocational and independent living problems.

**REHAB- 602 Management Of Non-Profit Organizations (3.00 cr.)**

Repeatable: No

Principles and practices in the operation of non-profit organizations. Comparison of how non-profit and for-profit operations are affected by organizational structures and authority, budgeting practices, sources of income, personnel issues, strategic planning and program evaluation, and marketing. Application to community agencies.

**REHAB- 659 Workforce Development, Disability, And Socioeconomics (3.00 cr.)**

Repeatable: No

Macro/micro influences that keep people unemployed and underemployed, including community, services, providers, employers, and families. Interface among legislative initiatives, disability, and life/work. Policy, strategies, and skills that promote effective intervention and change. Intended for professionals in the field.

**REHAB- 660 Rehabilitation In The Private Sector (3.00 cr.)**

Repeatable: No

Case coordination to support maximum medical recovery and/or vocational rehabilitation of an injured person involved in insurance funded cases. Differences between public and private rehabilitation processes. Interviewing, planning, assessing transferable skills, placing in suitable work, and communicating with other involved individuals. Business practices, professional roles, and ethical issues.

**REHAB- 661 Forensics For The Human Service Professional (2.00 cr.)**

Repeatable: No

Terminology and practices associated with forensics for human service professionals. Strategies and materials related to preparation for testimony and expert witness testimony in a court of law and other legal settings.

**REHAB- 662 Absence Management (3.00 cr.)**

Repeatable: No

Orientation to workers with disabilities in business and industry. Focus is upon the elimination of attitudinal and environmental barriers as they pertain to hiring, productivity, and retention of workers with disabilities. Governmental requirements, linkage between business, community resources, and rehabilitation.

**REHAB- 670 Work Adjustment Services (2.00 - 3.00 cr.)**

Repeatable: No

Principles and procedures of adjustment services. Emphasis upon

the change and improvement of behavior. Supervised practical experience in interviewing, behavior observation, individual work adjustment planning, lesson plan development and report writing.

**REHAB- 682 Sexuality And Disability (2.00 cr.)**

Repeatable: No

Investigate sexuality as an integral part of the disability experience. Explore programs, techniques and personal biases in relation to sexuality of persons with disabilities.

**REHAB- 683 Vocational Counseling Issues (2.00 cr.)**

Repeatable: No

Theoretical and applied approaches to vocational counseling and current research in vocational choice and career development as related to vocational counseling.

**REHAB- 688 Developing Collaborative Partnerships (3.00 cr.)**

Repeatable: No

Development of professional relationships that are characterized by collaboration and respect for the consumer or student. Role of team members including human service professionals, consumer student, family members, school personnel, and community organization staff in collaborative decision making. Enhanced service delivery responsiveness through application of collaborative principles.

**REHAB- 700 Seminar--Vocational Rehabilitation (1.00 - 2.00 cr.)**

Repeatable: No

A seminar course devoted to the field of vocational rehabilitation and subject materials pertinent to the field.

**REHAB- 701 Foundations Of Rehabilitation (3.00 cr.)**

Repeatable: No

Foundations of rehabilitation including its philosophical foundation, historical development, organization; professional roles, responsibilities, and practices; and future trends.

**REHAB- 704 Pre-Practicum in Rehabilitation (3.00 cr.)**

Repeatable: No

Basic counseling skills to prepare for supervised clinical experiential courses (practicum and internship). Counseling process and counseling strategies in rehabilitation settings.

*Prerequisite or Corequisite: COUN-750*

**REHAB- 705 Practicum In Rehabilitation Leadership (3.00 cr.)**

Repeatable: No

Practical experience in leadership within rehabilitation organizations. Leaders' roles may be demonstrated through experiences in fiscal management, human resource management, strategic planning, staff development, contract negotiations and production management.

Department consent

**REHAB- 707 Practicum In Vocational Evaluation (4.00 cr.)**

Repeatable: No

A supervised experience that integrates vocational evaluation course material. The student will plan, conduct and communicate

findings of comprehensive vocational evaluations with consumers who are disabled.

Department consent

*Prerequisites: take REHAB-620, REHAB-717, REHAB-723, REHAB-724, all with minimum grade of B.*

**REHAB- 708 Practicum In Rehabilitation Counseling (3.00 - 5.00 cr.)**

Repeatable: No

Minimum of 100 hours of supervised clinical experience in a rehabilitation setting approved by instructor. Student will perform entry level duties of a rehabilitation counselor.

Department consent

*Prerequisites: take COUN-788 or REHAB-704 with a minimum grade of B*

**REHAB- 710 Rehabilitation Implications Of Sensory Impairment (3.00 cr.)**

Repeatable: No

Medical, psychosocial, and vocational implications of sensory disabilities. Disabling conditions affecting all five senses, with particular emphasis on hearing and visual impairments.

**REHAB- 711 Psychological Testing in Rehabilitation and Counseling (3.00 cr.)**

Repeatable: No

Overview of common individual and group approaches to psychological assessment used within rehabilitation and counseling environments with an emphasis on selection, evaluation, administration, scoring and interpretation of standardized tests for diverse populations.

**REHAB- 713 Aspects Of Disability: Physical Disabilities (3.00 cr.)**

Repeatable: No

Study of major physical disabilities including medical aspects and the psycho-social and vocational implications. Will cover the existence, onset, severity, progression and expected duration of disabilities.

**REHAB- 714 Aspects Of Disability: Cognitive (3.00 cr.)**

Repeatable: No

Major cognitive and psychiatric disabilities and their medical, psycho-social, and vocational implications. Incidence, onset, severity, progression and expected duration (mental retardation, learning disability, mental illness, brain injury and disease).

**REHAB- 715 Research In Rehabilitation and Counseling (3.00 cr.)**

Repeatable: No

Basic research methods and design used to determine the effectiveness of rehabilitation services and outcomes. Statistical techniques, research terminology and design, ethical and legal implications of human subjects' research in quantitative and qualitative research applications. Critically analyze research and skill application through development of a practice-related research proposal.

**REHAB- 717 Occupational Analysis And Job Placement (3.00 cr.)**

Repeatable: No

Application of occupational analysis, career information, and

placement concepts to the practice of job placement of persons with a disability. Includes job development/search techniques and the nature and critical impacting factors of the placement process.

**REHAB- 723 Procedures Of Vocational Evaluation (3.00 cr.)**

Repeatable: No

Basic philosophies, practices, and processes of vocational evaluation applied to individuals with disabilities. Knowledge of specific assessment tools/instruments and application of clinical skills needed to analyze relevant information for program and career planning, identify significant behaviors, interpret findings to others and communicate assessment result.

**REHAB- 724 Applied Vocational Assessment and Evaluation (1.00 - 2.00 cr.)**

Repeatable: Yes

Vocational assessment techniques including diagnostic interviewing, vocational counseling, needs analysis and planning, psychological testing, referral for services and communication of assessment results. Advanced vocational evaluation techniques include work samples, situational or community-based assessment, evaluation planning, behavioral observation, analysis and synthesis of results and comprehensive vocational evaluation report writing.

*Prerequisite or concurrent enrollment in REHAB-723*

**REHAB- 735 Problems In Vocational Rehabilitation (2.00 cr.)**

Repeatable: No

Identification, selection, and completion of a problem in vocational rehabilitation. The problem project will culminate in a Plan B paper. Intervention focusing on the family as the consumer of rehabilitation services.

*Prerequisite: take EDUC-740*

**REHAB- 749 Cooperative Education Experience (1.00 - 12.00 cr.)**

Repeatable: Yes

Supervised work experience with an approved rehabilitation agency/facility in an area directly related to the student's major concentration. Selection by application and interview.

Department consent

**REHAB- 752 Group Work in Rehabilitation (3.00 cr.)**

Repeatable: No

Theoretical and applied understandings of group work and group dynamics when working with individuals with disabilities. Approaches to leading groups in rehabilitation settings and planning and forming groups.

*Prerequisites: take COUN-750 and REHAB-704*

**REHAB- 764 Case Coordination (3.00 cr.)**

Repeatable: No

Concepts and philosophy of the case coordination in rehabilitation applied to various employment settings. Integration of consumer case study data, identification of service need and plan development.

*Prerequisites: take REHAB-713 and REHAB-714*

**REHAB- 770 Thesis - Vocational Rehabilitation (2.00 - 6.00 cr.)**

Repeatable: Yes

Independent research under direction of investigation adviser.

Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

*Prerequisite: take EDUC-740*

**REHAB- 780 Leadership And Management In Vocational Rehabilitation (2.00 cr.)**

Repeatable: No

Leadership theories and rehabilitation organization concepts emphasizing continual skill building of leaders. Roles and responsibilities of leadership in promoting quality of business practices and partnerships. Response to system change, public policy, emerging trends, and ethical principles.

*Requires Admission to the MS in Vocational Rehabilitation*

**REHAB- 783 Internship In Vocational Evaluation (5.00 cr.)**

Repeatable: No

A culminating practical experience using the tools and techniques of vocational evaluation to perform tasks of interviewing, planning, counseling, administering assessment tasks, observing, and reporting.

*Prerequisite: must be M.S. degree candidate; take REHAB-707 with a B or better*

**REHAB- 785 Internship In Rehabilitation Leadership (6.00 cr.)**

Repeatable: No

A culminating practical experience in providing leadership to accomplish organizational goals. Tasks in fiscal, personnel, program development, fund raising, production, marketing, and contract procurement. Must be a M.S. degree candidate.

Department consent

*Prerequisites: Must be M.S. degree candidate; take REHAB-705 with a B or better.*

**REHAB- 787 Internship In Rehabilitation Counseling (5.00 cr.)**

Repeatable: Yes

Minimum of 600 hours of supervised clinical rehabilitation counseling experience in a rehabilitation setting approved by instructor. At least 240 hours of direct service to individuals with disabilities.

*Prerequisites: Must be M.S. degree candidate; take REHAB-707 or REHAB-708 with B or better*

**REHAB- 798 Field Experience In Rehabilitation (1.00 - 2.00 cr.)**

Repeatable: Yes

Off-campus work and study in an approved position to better understand the challenges and potentials of various rehabilitation type careers.

Department consent

**REHAB- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**SCIED – Science Education**

**SCIED- 501 Science Education Methods** (3.00 cr.)

Repeatable: No

Methods of teaching science; theories and applications, issues and trends.

*Benchmark I Completed*

**SCIED- 560 Science Education Curriculum And Assessment** (3.00 cr.)

Repeatable: No

Curriculum and assessment for teaching science; theories and applications, issues and trends.

*Benchmark I Completed*

**SCIED- 609 Student Teaching - Science Education** (2.00 - 16.00 cr.)

Repeatable: No

Student teaching experiences in science education.

*Prerequisites: Benchmark I completed and Senior level*

**SCIED- 610 Biology Student Teaching** (2.00 - 16.00 cr.)

Repeatable: No

Student teaching experience in biology

*Prerequisite: Benchmark II completion*

**SCIED- 611 Chemistry Student Teaching** (2.00 - 16.00 cr.)

Repeatable: No

Student teaching experience in chemistry.

*Prerequisite: Benchmark II completion*

**SCIED- 612 Physics Student Teaching** (2.00 - 16.00 cr.)

Repeatable: No

Student teaching experience in physics.

*Prerequisite: Benchmark II completion*

**SCIED- 613 Earth and Space Science Student Teaching** (2.00 - 16.00 cr.)

Repeatable: No

Student teaching experience in Earth and space science.

**SCIED- 614 Environmental Science Student Teaching** (2.00 - 16.00 cr.)

Repeatable: No

Student teaching experience in environmental science.

**SCIED- 619 Broadfield Science Teaching Internship** (2.00 - 16.00 cr.)

Repeatable: No

Internship experience in teaching broadfield science.

*Prerequisite: Benchmark II completion*

**SCIED- 620 Biology Teaching Internship** (2.00 - 16.00 cr.)

Repeatable: No

Internship experience in teaching biology.

*Prerequisite: Benchmark II completion*

**SCIED- 621 Chemistry Teaching Internship** (2.00 - 16.00 cr.)

Repeatable: No

Internship experience in teaching chemistry.

*Prerequisite: Benchmark II completion*

**SCIED- 622 Physics Teaching Internship** (2.00 - 16.00 cr.)

Repeatable: No

Internship experience in teaching physics.

*Prerequisite: Benchmark II completion*

**SCIED- 623 Earth and Space Science Teaching Internship** (2.00 - 16.00 cr.)

Repeatable: No

Internship experience in teaching earth and space science.

**SCIED- 624 Environmental Science Teaching Internship** (2.00 - 16.00 cr.)

Repeatable: No

Internship experience in teaching environmental science.

**SCIED- 688 Internship Teaching - Science Education** (8.00 - 16.00 cr.)

Repeatable: No

Alternative to student teaching experience: licensed and salaried internship in a cooperating school.

*Prerequisites: Benchmark II completion and Senior level*

**SCIED- 710 Current topics In Science For Teachers** (3.00 cr.)

Repeatable: Yes

Current topics, issues, and events in the field of sciences and how they might be incorporated in the curriculum and instruction of science courses.

**SCOUN – School Counseling**

**SCOUN- 501 Introduction To Guidance** (2.00 cr.)

Repeatable: No

Policies and practices of organized guidance programs in educational settings; historical, philosophical and cultural bases for guidance services; guidance techniques for teachers; cooperative efforts of teachers, parents and counselors.

**SCOUN- 600 Workshop: Counseling/Psychological Services** (1.00 - 3.00 cr.)

Repeatable: Yes

**SCOUN- 605 Emerging Issues In School Counseling** (2.00 cr.)

Repeatable: No

Identify, explore and research issues and trends impacting practice and resources in school counseling. Student must be currently employed in a school setting or licensed to work in schools.

**SCOUN- 647 Emotional And Behavioral Problems Of Children And Adolescents** (3.00 cr.)

Repeatable: No

Assessment, identification and evaluation of emotional and behavioral disorders of learners middle childhood through adolescence, including methods of observing, diagnosing, documenting and interpreting. Characteristics of emotional and behavioral disabled learners, including potential concomitant physical, cognitive, or sensory disabilities and psychological, social and environmental factors contributing to childhood emotional and behavioral disorders.

**SCOUN- 705 Play Therapy** (2.00 cr.)

Repeatable: No

Study of play therapy theory, research, and utility in school and clinical settings. Application of play-based assessment, treatment planning, and therapeutic skills through supervised laboratory experience.

**SCOUN- 727 Supervision in Pupil Services** (1.00 cr.)

Repeatable: No

Theories, strategies and models of school-based supervision of school counseling and school psychology students. Ethical guidelines, best practice strategies, supervisory roles, and supervision standards for individuals responsible for supervising practicum students and interns are addressed. Not intended for use in a degree program.  
Instructor's consent

**SCOUN- 733 Lifespan Career Development** (3.00 cr.)

Repeatable: No

Study and application of career development and theories from a lifespan perspective. Examination of established and emerging labor markets, economic and social forces likely to impact career development and choice. Access, implementation, and evaluation of information systems. Application of assessment tools and techniques.

**SCOUN- 735 Problems In Counseling And Psychological Services** (2.00 cr.)

Repeatable: No

Plan B investigations are the primary purpose of this course. Students who are ready to write their Plan B paper should register for this course and then confer with the major adviser to select a staff member who will serve as an investigation adviser. Meetings with the adviser are by arrangement only.

**SCOUN- 765 Professional Orientation To School Counseling** (3.00 cr.)

Repeatable: No

Orientation to school counseling history, professional roles and functions, and programming models. Credentialing processes, professional organizations, public policies related to school counseling.

**SCOUN- 770 Thesis** (2.00 - 6.00 cr.)

Repeatable: Yes

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.  
*Prerequisite: take EDUC-740*

**SCOUN- 782 PK-12 Developmental Guidance Curriculum** (3.00 cr.)

Repeatable: No

Strategies and techniques for designing and delivering PK-12 developmental guidance curriculum. National and state student standards and benchmarks as framework for curriculum design. Instructional and facilitation strategies, classroom management, evaluation processes for elementary, middle, and high school group/classroom guidance.

*Prerequisites: take COUN-750 and SCOUN-765; must be M.S. School Counseling or M.S. Guidance & Counseling major*

**SCOUN- 788 School Counseling Practicum** (2.00 - 3.00 cr.)

Repeatable: No

Application of individual, small group, and large group guidance and counseling techniques in school settings. Supervised practice for a minimum of 100 hours on site, with additional campus-based supervision.

*Prerequisites: take COUN-750 and COUN-788*

**SCOUN- 789 Elementary School Counseling Internship Practicum** (3.00 - 6.00 cr.)

Repeatable: No

Practical experience in school counseling in a K-8 school setting for a minimum of 300 hours. Application of counselor competencies and utilization of professional school counseling skills under supervision. Instructor's consent

*Prerequisite: take SCOUN-793*

**SCOUN- 790 Secondary School Counseling Internship** (3.00 - 6.00 cr.)

Repeatable: No

Practical experience in school counseling in a 9-12 school setting for a minimum of 300 hours. Application of counselor competencies and utilization of professional of professional school counseling skills under supervision. Instructor's consent

**SCOUN- 791 Internship In Guidance And Counseling** (6.00 cr.)

Repeatable: Yes

The student will devote a minimum of 360 hours, full-time (each quarter) in a local school serving as a school counselor. In this experience, they will be supervised by university personnel and work with a fully certified local school counselor. Experiences include all aspects of the guidance function.

*Prerequisite: take SCOUN-790*

**SCOUN- 792 Post-Secondary Career Counseling Practicum** (3.00 cr.)

Repeatable: No

Closely supervised career counseling experience at a postsecondary

career counseling center.

*Prerequisites: take SCOUN-733 and SCOUN-787*

**SCOUN- 793 School Counseling Internship Seminar (2.00 cr.)**

Repeatable: No

Case consultation and group supervision activities to accompany field-based application of school counseling knowledge and skills.

Must be taken concurrently with SCOUN-789 and/or SCOUN-790.

Instructor's consent

**SCOUN- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**SCOUN- 895 Field Study (2.00 - 6.00 cr.)**

Repeatable: Yes

Experience in action-type field research in pupil personnel services.

The student will identify and research a topic directly related to his career position. Preparation and presentation of a formal report of the study to appropriate personnel. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

## **SMGT – Sustainable Management**

**SMGT- 700 Cultural and Historical Foundations of Sustainability (3.00 cr.)**

Repeatable: No

The changing relationships of humans to the natural environment: changes in dominant scientific perspectives and the process of scientific debate. The quest for understanding, manipulating, and dominating the natural world. Cultural and organizational structures; the role and impact of technology; the systems approach to problems solving and its implications for the future.

Instructor's consent

**SMGT- 710 The Natural Environment (3.00 cr.)**

Repeatable: No

The role of humans in the biosphere; human impacts on natural systems (natural cycles, climate, water, energy, bio-systems, eco-systems). Use of case studies, some pre-reading, carbon cycle as a unifying theme. Disturbance pollution and toxicity, carrying capacity and natural capital.

Instructor's consent

**SMGT- 720 Applied Research and the Triple Bottom Line (3.00 cr.)**

Repeatable: No

Document and project internal and external costs resulting from the inseparability of the natural, social, and economic environments.

Assess sustainability issues using basic modeling techniques; cause and effect, root cause analysis, regression analysis, and business scenario-based cases.

Instructor's consent

**SMGT- 730 Policy, Law, and the Ethics of Sustainability (3.00 cr.)**

Repeatable: No

Policy, law and ethics regarding sustainability of economic

development and emerging national and international environmental challenges. The role of domestic and international enforcement agencies and commissions such as the Department of Interior, United Nations Environment Programme, in building a more just, prosperous, and secure environmental common future.

**SMGT- 740 Economics of Sustainability (3.00 cr.)**

Repeatable: No

Understand the economy as a component of the ecosystem within which it resides, with natural capital added to the typical analysis of human, social, built, and financial capital. Explore traditional micro, macro, and international trade theory and policy and the implications of sustainability.

Instructor's consent

**SMGT- 750 The Built Environment (3.00 cr.)**

Repeatable: No

The assessment of the intersection of the built environment and human needs: water, air, food, waste, transportation, health care and education. Focus on evaluation and analysis of energy technology systems and building efficiency in the context of facilities management.

Instructor's consent

**SMGT- 760 Geopolitical Systems (3.00 cr.)**

Repeatable: No

Examination of decision making and public policy for sustainability at the national, state, and local level; emphasizing social, economic, and political factors that affect decisions within the public, non-profit, and private sectors; and decisions designed to foster achievement of sustainability.

Instructor's consent

**SMGT- 770 Leading Sustainable Organizations (3.00 cr.)**

Repeatable: No

Macro-level perspective on leading sustainable organizations. topics include organizational change and transformation processes, strategic and creative thinking, organizational structures and their impacts, conflict management and negotiation, stakeholder management and situational leadership styles and behaviors. How organizational leaders develop and enable sustainable organizations, especially in times of environmental change.

Instructor's consent

**SMGT- 780 Corporate Social Responsibility (3.00 cr.)**

Repeatable: No

Evaluation of risks and potential impacts in decision making and recognizing the links between the success of an organization and the well being of a community. Integrating corporate social responsibility throughout an organization, creating metrics and communicating CSR policies internally and externally. Development of best practices in an organization pertaining to corporate social responsibility.

Instructor's consent

**SMGT- 782 Sustainable Supply Chain Management (3.00 cr.)**

Repeatable: No



Planning, organizing and controlling the organization's supply chain based on the triple bottom line; use of total cost analyses and product/process life cycles to lead strategy and operations decisions. Impacts of sourcing, reverse logistics and service supply chains on organizational performance and the resulting carbon, water and pollution footprints are considered.

*Prerequisites: take SMGT-720 and SMGT-740*

**SMGT- 784 Sustainable Water Management (3.00 cr.)**

Repeatable: No

Practical applications of sustainability in aquatic environments. Topics include water and health, water quality and quantity, governance, assessing the aquatic environment, water treatment technologies, environmental mitigation, and impacts of climate change. Emphasis will be on selected areas of interest from the perspective of public health, engineering, and municipal conservation management.  
Instructor's consent

**SMGT- 785 Waste Management and Resource Recovery (3.00 cr.)**

Repeatable: No

Practical issues of sustainability in waste management. The generation, processing, management and disposal of municipal, industrial and agricultural waste with an emphasis on the technical, economic and environmental aspects of various recovery processes. Also, producer responsibility and design for environment and life cycle analysis.  
Instructor's consent

**SMGT- 790 Research Methods (1.00 cr.)**

Repeatable: No

Methods used in epidemiologic research, including the design of research studies and the collection and analysis of data. Sustainability studies are typically observational in nature, meaning that the investigator has limited control over the exposure that study participants experience and are typically concerned about the health of organizations.  
Instructor's consent

**SMGT- 792 Capstone Project (3.00 cr.)**

Repeatable: No

Original research on a project of the student's choosing with instructor approval, typically involving a sustainability issue applicable in the student's place of employment or a local not-for-profit organization. A continuation of the research methodology course that is a prerequisite.

Instructor's consent

*Prerequisite: take SMGT-790*

**SMGT- 795 Special topics in Sustainable Management (3.00 cr.)**

Repeatable: No

Various specialized areas in Sustainable Management will be examined. The specific topic will be advertised prior to the semester.  
Repeatable with different topics.

## **SOC – Sociology**

**SOC- 515 Criminology (3.00 cr.)**

Repeatable: No

Sociological analysis of structure and function of criminal law, variables of criminal behavior and operation of criminal justice system.

**SOC- 525 Sociology Of Leisure (3.00 cr.)**

Repeatable: No

Institutional approach to effects of leisure on social structure; values reflected in leisure; problems with increase in leisure resources.

**SOC- 540 Sociology Of Work (3.00 cr.)**

Repeatable: No

Human behavior in various types of employment and occupations; trends in U.S. occupational structure.

**SOC- 550 Sociology Of Hmong Culture (1.00 cr.)**

Repeatable: No

Sociological overview of Hmong cultural values, history, immigration and resettlement experiences, family and clan functions, and spiritual beliefs and practices.

**SOC- 560 Sociology Of Juvenile Delinquency (3.00 cr.)**

Repeatable: No

Theories of delinquency, criminal behavior, and social control in relation to modern institutions in American culture.

**SOC- 610 Sociology Of Thailand'S Minority Groups: Study Abroad Program (4.00 cr.)**

Repeatable: No

Study abroad program to Thailand. In-depth experiential learning of Thai minority cultures, including religions, socio-political status, Buddhism, health, education, trafficking of women and children, limited citizenship status, and poverty. Field trips to villages, non-governmental agencies, schools, and clinics.

## **SOCWK – Social Work**

**SOCWK- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: No

## **SPCOM – Speech Communication**

**SPCOM- 508 Speech Skills For Business And Industry (2.00 cr.)**

Repeatable: No

Professional communication; projects emphasizing the application of oral presentation skills in business and professional contexts.

**SPCOM- 710 Advanced Interpersonal Communication for Professionals (3.00 cr.)**

Repeatable: No

Study of interpersonal communication theory applied to organizational and professional contexts.

## **SPED – Special Education**

### **SPED- 500 Introduction To Individuals With Cognitive Disabilities (3.00 cr.)**

Repeatable: No

Introduction to etiology of mental retardation; psychological, educational, social and vocational aspects; adjustment techniques used in working with mentally retarded persons.

### **SPED- 501 Learning Disabilities (3.00 cr.)**

Repeatable: No

Identification, remediation and evaluation of learning disabled; intervention techniques used with adolescents and adults.

### **SPED- 505 Early Childhood Inclusion of Students with Exceptional Needs (3.00 cr.)**

Repeatable: No

History and purpose of Early Childhood Special Education. Programming; legislation; population receiving services; adaptations; strategies; family intervention; intervention models; inclusion of all students in the natural environment or least restrictive environment.

### **SPED- 510 ECSE Methods, Materials and Curriculum (3.00 cr.)**

Repeatable: No

Curricular and methodological adaptation; embedding goals and objectives for young children with exceptional needs in the areas of social-emotional development, motor skills, self-help skills, communication, cognitive development.

*Only for students seeking Early Childhood Special Education certification.*

### **SPED- 515 Early Childhood Special Education Organization and Implementation (3.00 cr.)**

Repeatable: No

Organization and implementation of Early Childhood Special Education programs. Service delivery; itinerant services; consultation and collaboration; and intervention models.

*Prerequisite: take SPED-505; only for students seeking ECSE certification.*

### **SPED- 520 Early Childhood Special Education Assessment (3.00 cr.)**

Repeatable: No

Supervised practice in assessment of young children with suspected or identified developmental delays. Standardized and informal assessment instruments for screening; determining eligibility for special needs programming; and progress monitoring of early learning in early childhood children.

*Prerequisites: SPED-505, SPED-510, SPED-515, and must be seeking ECSE certification.*

### **SPED- 522 Curriculum & Instruction: Severe Disabilities (2.00 cr.)**

Repeatable: No

Curriculum and instruction strategies for teaching functional academics, personal/social, vocational, and community living skills to individual with severe and profound disabilities. *Prerequisites: take SPED-500 and SPED-630*

### **SPED- 523 Mild Disabilities: Social Studies And Science (3.00 cr.)**

Repeatable: No

Curriculum and methods of teaching students with mild cognitive, learning, and emotional/behavioral disabilities in the content areas of social studies, science, and in general education. Strategies that facilitate integration, improve maintenance and generalization of skills, promote transitions, increase self-awareness and self-management, and compensate for learning deficits.

### **SPED- 524 Curriculum & Instruction: Career & Transition Education (3.00 cr.)**

Repeatable: No

Curriculum and instruction for persons with cognitive disabilities, borderline and severe, in prevocational career, vocational education, and transition stressing interdisciplinary cooperation. *Prerequisites: take SPED-500 and SPED-630*

### **SPED- 526 Pre-Student Teaching: Cognitive Disabilities (2.00 cr.)**

Repeatable: Yes

Supervised experience in observing, planning instruction, and teaching children and youth with cognitive disabilities in a cross-categorical school environment. Repeatable three times for credit. Department consent

### **SPED- 528 Assessment For Individual Education/ Transition Plans (3.00 cr.)**

Repeatable: No

Diagnosing behavior and learning problems of students with exceptional education needs. Preparing individual educational and transitional plans based on comprehensive assessments.

*Prerequisite: take REHAB-620*

### **SPED- 530 Introduction To Communication Disorders (3.00 cr.)**

Repeatable: No

Nature, causes of and methods used when working with individuals who have speech and language disorders.

### **SPED- 536 Early Childhood Special Education Pre-Student Teaching (2.00 cr.)**

Repeatable: No

Supervised experience in teaching children with exceptionalities. Instructional practices based on knowledge of the child, family, community, and the curriculum.

*Prerequisite: take SPED-505. Must be seeking ECSE certification.*

### **SPED- 538 Pre-Student Teaching: Children And Youth With Disabilities (2.00 cr.)**

Repeatable: No

Supervised experience in observing, planning instruction, and teaching children and youth with disabilities in a cross-categorical school environment.

**SPED- 600 Workshop: topics In Special Education** (1.00 - 3.00 cr.)

Repeatable: No

Current specialized topics studied through experiential activities.

**SPED- 620 Schools, Families And Community Collaboration** (3.00 cr.)

Repeatable: No

Theory, general principles and procedures for fostering collaborative partnerships among families, professionals, students and other service providers. Focuses on families with children who have disabilities.

**SPED- 630 Inclusion Of Students With Exceptional Needs** (3.00 cr.)

Repeatable: No

Inclusion of students with exceptional educational needs in the regular classroom setting. Laws, definition, characteristics, adaptations, strategies and transitional services that pertain to persons identified with: cognitive disability, learning disability, attention deficit hyperactivity disorder, emotional disability, autism, traumatic brain injury, speech and language disorders, visual and hearing loss, physical and other health impairments, and gifted and talented.

**SPED- 640 Diagnosis And Remediation Of Literacy And Math Disabilities** (4.00 cr.)

Repeatable: No

Curriculum, methods, assessment and remediation of teaching reading, math, and language to individuals with mild disabilities. Strategies that assess and evaluate, monitor progress, increase, maintain and generalize skills, facilitate integration, and compensate for learning deficits in the general and special education curricula.

*Prerequisites: take EDUC-580, EDUC-581, and EDUC-582*

**SPED- 647 Emotional And Behavioral Problems Of Children And Adolescents** (3.00 cr.)

Repeatable: No

Assessment, identification and evaluation of emotional and behavioral disorders of learners middle childhood through adolescence, including methods of observing, diagnosing, documenting and interpreting. Characteristics of emotional and behavioral disabled learners, including potential concomitant physical, cognitive, or sensory disabilities and psychological, social and environmental factors contributing to childhood emotional and behavioral disorders.

**SPED- 662 Classroom Management Techniques** (3.00 cr.)

Repeatable: No

Techniques for motivating handicapped youth, individual and group discipline, behavior modification, educational organization, evaluation, and communication to enhance learning.

**SPED- 671 Introduction to Special Education and Professional Portfolio Development** (3.00 cr.)

Repeatable: No

Survey of the history of the field, the philosophy of special education, the mission of the field, special education legislation and

mandates, issues within the profession, influential organizations, and the basic principles of professional portfolio development.

**SPED- 672 Foundations of Autism Spectrum Disorder** (3.00 cr.)

Repeatable: No

A foundation for understanding individuals with Autism spectrum Disorders (ASD) and its effect on the individuals' life and learning, through a comprehensive overview of the history, current literature, and best practices.

**SPED- 673 Behavior Interventions and Positive Behavior Supports** (3.00 cr.)

Repeatable: No

Study functional behavioral assessment (FBA) and behavioral intervention planning (BIP) for individualized behavior problems for students with Autism Spectrum Disorder and related disabilities in the PK-12 educational setting. Focus on assessment skills to produce data-driven environmental modifications, pro-social replacement behaviors, consequence strategies, and home-school collaboration.

**SPED- 674 Augmentative Communication and Social Skills** (3.00 cr.)

Repeatable: No

Review current literature in supporting communication and social skills for individuals with Autism Spectrum Disorder; including best practices in assessment and implementation of augmentative and alternative communication interventions.

**SPED- 675 Assessment and Methodology of Autism Spectrum Disorder** (3.00 cr.)

Repeatable: No

Critical review of assessment methods used in the identification of Autism Spectrum Disorder. Formal and informal assessment results are utilized to create an intervention plan that is responsive to the student's individual needs.

**SPED- 676 Practicum in Autism Spectrum Disorder** (3.00 cr.)

Repeatable: No

Review of instructional techniques, adaptations, and modifications to develop individualized instruction for students with autism spectrum disorder. Aligning instruction to student learning and behavioral styles and assessment in the general education and special education settings.

Department consent

**SPED- 681 Student Teaching: Special Education** (4.00 - 16.00 cr.)

Repeatable: Yes

Directed special education teaching and community experience in selected off-campus schools.

Department consent

**SPED- 682 Student Teaching Early Childhood-Special Education** (8.00 cr.)

Repeatable: No

Directed teaching and community experiences in selected infant-toddler, preschool, or school based programs for children with disabilities.

*Prerequisites: take SPED-520 and SPED-630*

**SPED- 689 Intern Teaching Early Childhood: Special Education (8.00 - 16.00 cr.)**

Repeatable: Yes

Directed teaching and community experiences in selected infant, toddler, preschool, or primary school-based programs for children with disabilities.

*Prerequisite: take SPED-520*

**SPED- 690 Behavioral Interventions In The Schools (2.00 cr.)**

Repeatable: No

Study and practice in Functional Behavioral Assessment and Behavioral Intervention Planning for individualized behavior problems in the PK-12 education setting using both a direct-service and consultation-collaboration model. Focus on assessment skills to produce data-driven environmental modifications, pro-social replacement behaviors, consequence strategies, and home-school interventions.

**SPED- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**SPSY – School Psychology**

**SPSY- 690 Behavioral Interventions In The Schools (2.00 cr.)**

Repeatable: No

Study and practice in Functional Behavioral Assessment and Behavioral Intervention Planning for individualized behavior problems in the PK-12 education setting using both a direct-service and consultation-collaboration model. Focus on assessment skills to produce data-driven environmental modifications, pro-social replacement behaviors, consequence strategies, and home-school interventions.

**SPSY- 701 Roles and Functions of School Psychologists (2.00 cr.)**

Repeatable: No

Overview of the history, roles and functions of school psychologists (nationally and regionally). Observation and discussion of the profession in a seminar format.

**SPSY- 710 Early Childhood Assessment and Intervention (2.00 cr.)**

Repeatable: No

Principles and techniques in assessing and intervening with early learners. Applied practice in developmental and pre-academic assessment. Examination of early childhood programming, service delivery, intervention planning, and family support.

*Prerequisites: take SPSY-743 & SPSY-753*

**SPSY- 727 Supervision in Pupil Services (1.00 cr.)**

Repeatable: No

Theories, strategies and models of school-based supervision of school counseling and school psychology students. Ethical guidelines, best practice strategies, supervisory roles, and supervision standards for individuals responsible for supervising practicum students and interns are addressed. Not intended for use

in a degree program.

Instructor's consent

**SPSY- 735 Problems In School Psychology (2.00 cr.)**

Repeatable: No

Independent investigation into a carefully delineated area of school psychological services in an attempt to bring evidence to bear on a problem. The use of research techniques is required. Reporting of the study is expected to meet the standards appropriate to scholarly writing by professionals in the field.

*Prerequisite: take EDUC-740*

**SPSY- 743 Cognitive Assessment (3.00 cr.)**

Repeatable: No

Supervised practice in the administration, scoring and interpretation of individual tests of cognitive abilities. Emphasis is directed toward the evaluation of intellectual ability, the examination of strengths and weaknesses in cognitive processing, the integration of findings in psycho-educational reports, and intervention planning for individual clients.

*Prerequisites: take SPSY-753 and SPSY-753B*

**SPSY- 745 Social, Emotional, and Behavioral Assessment of Youth (2.00 cr.)**

Repeatable: No

Theoretical and applied aspects of clinical assessment methods and techniques for evaluating the social, behavioral, and emotional functioning of children and adolescents through the use of various objective and projective assessment tools and techniques.

*Prerequisite: take SPSY-743*

**SPSY- 753 Psychometric Theory & Application (2.00 cr.)**

Repeatable: No

Introduction to psychoeducational theory and concepts in relation to inter- and intra-individual assessment. Covers basic statistics, in regard to test construction, test uses and misuses, test selection, purposes of testing, ethics, basic test interpretation processes and types of tests and testing programs frequently employed by psychoeducational specialists.

**SPSY- 753A School Counseling Assessment Laboratory (1.00 cr.)**

Repeatable: No

Introduction to assessment materials and techniques employed by school counselors. Individual inventories, aptitude and achievement tests, problem surveys and other student assessment materials.

*Prerequisite or corequisite: SPSY-753*

**SPSY- 753B Lab--School Psychology (1.00 cr.)**

Repeatable: No

Introduction to basic psychometric materials and techniques employed by school psychologists. Emphasis is placed upon individual mental tests and procedures.

*Prerequisite or Corequisite: take SPSY-753*

**SPSY- 768 Learning Disabilities: Assessment And Intervention (3.00 cr.)**

Repeatable: No

Principles and techniques used in assessing, instructing, and identifying students with academic delays and/or learning disabilities. Historical perspectives, current research, and strategies for students at risk for and with learning disabilities is examined and evaluated. Applied practice in academic interventions and academic assessment techniques is utilized.

*Prerequisite: take SPSY-753*

**SPSY- 770 Thesis (2.00 - 6.00 cr.)**

Repeatable: Yes

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

*Prerequisite: take EDUC-740*

**SPSY- 775 School Consultation (2.00 cr.)**

Repeatable: No

Comprehensive overview of theories and processes of psychological and educational consultation. Training in specific consultative skills through use of role-play, feedback, and homework assignments.

**SPSY- 777 Legal/Ethical Issues For School Counselors And Psychologists (2.00 cr.)**

Repeatable: No

Investigation of laws, legal systems, professional ethics, administrative codes, and other legal and ethical issues as applied to professional practice of school counselors and school psychologists.

**SPSY- 778 Psychoeducational Disabilities (3.00 cr.)**

Repeatable: No

Etiology and characteristics of psychoeducational disabilities. Considerations for assessment and intervention. Understanding the role of the school psychologist in the educational system and in support of diverse learners, educators, and families.

**SPSY- 781 Field Practicum in School Psychology I (3.00 cr.)**

Repeatable: No

School-based field experience. Initial roles and functions of the school psychologist are explored, under supervision. School consultation; assessment of diverse learners; intervention and progress monitoring; special education process.

*Prerequisites: take SPSY-743 and SPSY-768; Ed.S. in School Psychology program admittance.*

**SPSY- 782 Field Practicum in School Psychology II (3.00 cr.)**

Repeatable: No

School-based advanced field experience. Continuing application of the roles and functions of the school psychologist, under supervision. Increasing focus on leadership skills.

*Prerequisite: take SPSY-781*

**SPSY- 784 Clinical Practicum In Psychoeducational Services I (2.00 cr.)**

Repeatable: No

This practicum course is designed to provide more intensive and extensive clinical experiences. Work with pre-school children, post-school young adults, school age children and their parents. Special assessment and intervention techniques are emphasized.

*Prerequisites: take SPSY-743 and SPSY-768; Ed.S. in School Psychology program admittance.*

**SPSY- 785 Clinical Practicum In Psychoeducational Services II (2.00 cr.)**

Repeatable: No

Provides integrative learning experiences into the role and style of function appropriate to the individual and the profession. Long term therapeutic contacts are required. Experience in one or more areas of specialization is available.

*Prerequisite: take SPSY-784*

**SPSY- 790 Systems-Level Prevention and Intervention (2.00 cr.)**

Repeatable: No

School-based prevention and intervention programs to address crises and systems-level needs. Principles of systems-level consultation, organizational change, universal screening procedures, intervention planning, program evaluation, and the analysis of evidence-based programs to promote the health and competence of youth are addressed. Practical experience in planning and evaluating school-based programs.

*Prerequisite or Corequisite: SPSY-775*

**SPSY- 792 Internship In School Psychology (3.00 cr.)**

Repeatable: Yes

Supervised field experience. Minimum of half-time must be completed in a school setting. Student will work with a certified school psychologist to apply skills across NASP Practice Model domains.

Department consent

*Prerequisite: take SPSY-782*

**SPSY- 799 Independent Study (1.00 - 3.00 cr.)**

Repeatable: Yes

Department consent

**SPSY- 870 Specialist Thesis In School Psychology (3.00 - 6.00 cr.)**

Repeatable: Yes

Independent research project. Selection of a research problem, review and critical analysis of literature and research, development of research plan and methodology, data collection, interpretation of findings and preparation of paper. Thesis orally presented and defended to thesis advisor and committee.

*Prerequisite: take EDUC-740*

**SPSY- 895 Applied Research Project in School Psychology (3.00 - 6.00 cr.)**

Repeatable: Yes

Independent, applied research project in a school- or community-based setting. Evidence-based rationale, development of methodology to implement project, collect data, and analyze results is required. An oral defense is required prior to final project

approval.

*Prerequisites: take either SPSY-735 or SPSY-770*

## **SRVM – Service Management**

### **SRVM- 546 Seminar In Training And Development (1.00 cr.)**

Repeatable: No

Definition and analysis of high performance service management best practices.

### **SRVM- 621 Customer Interaction Center Management (3.00 cr.)**

Repeatable: No

Introduction to evaluation, design, maintenance, and management of online telephone technology to provide customer service solutions for industry in customer interaction centers.

### **SRVM- 681 Special Problems In Service Management (1.00 - 3.00 cr.)**

Repeatable: Yes

## **STAT – Statistics**

### **STAT- 520 Statistical Methods (3.00 cr.)**

Repeatable: No

Methods of describing data: graphical methods, numerical summary measures, exploratory data analysis. Probability, probability distributions, expected value. Sampling distributions. Statistical inference: estimation and hypothesis testing for one-sample and two-sample problems. Regression analysis. Demonstrating with standard statistical software packages. Students may incur incidental expenses for software.

### **STAT- 640 Advanced Linear Modeling-Regression And Time Series Analysis (3.00 cr.)**

Repeatable: No

Multiple regression, inference about regression parameters, remedial regression measures, quantitative and qualitative regression, model selection/validation, nonlinear regression, neural networks, logistic and Poisson regression, generalized linear models, time series, smoothing, stochastic time series, moving average and autoregressive models, auto regressive integrated moving average (ARIMA), estimating and forecasting with time series. Instructor's consent

### **STAT- 730 Biostatistics I (3.00 cr.)**

Repeatable: No

Statistical analysis in biological and health sciences using case study examples. Review of descriptive statistics. Discrete and continuous probability models in biostatistics, parametric and non-parametric inference in biostatistics (estimation and tests of hypotheses), correlation, and linear, polynomial, nonlinear and logistic regression.

### **STAT- 731 Biostatistics II (3.00 cr.)**

Repeatable: No

Advanced statistical analysis of biological data focusing on health

science and conservation using case study examples. Design of experiments, single-factor and multi-factor ANOVA, multivariate analysis, multiple linear regression, least-squares estimation, stepwise procedures, partial F-tests, model aptness, data reduction techniques, principles component analysis, discrimination and classification techniques, discriminant and cluster analysis.

*Prerequisite: take STAT-730*

### **STAT- 740 Multivariate Statistical Analysis (3.00 cr.)**

Repeatable: No

Aspects of multivariate analysis, matrix algebra, random vectors, graphical techniques and descriptive statistics for multivariate data, multivariate normal, Wishart distribution, inference about mean vectors, confidence regions and simultaneous comparisons of component means, comparison of several multivariate means, multivariate linear regression, principle component and factor analysis, classification-discriminants analysis, clustering and trees.

*Prerequisite: take STAT-640*

## **STMED – Science, Technology and Mathematics Education**

### **STMED- 601 Capstone: Math and Science Education (1.00 cr.)**

Repeatable: No

Synthesis of material learned in the math and science education program and study of educational research, evidence-based practice, and professional development.

*Prerequisite: Benchmark I completion*

### **SUST- 515 Sustainable Engineering (3.00 cr.)**

Repeatable: No

Impact of engineering and design/manufacturing decisions on the environment. topics include sustainability, energy and material flows, risk assessment, multi-use product life cycles, manufacturing process waste streams, sustainable product design issues, end-of-life product handling, and pollution prevention techniques.

## **SUST – Sustainability**

### **SUST- 632 Global Sustainability Experience in Design & Manufacturing (3.00 cr.)**

Repeatable: No

Cross-disciplinary exploration of ecologically-friendly design, engineering, manufacturing and business models. International travel component with corporate, cultural, academic and civic leaders. Cultural, economic and political influences; product design; manufacturing; sustainability; application of current eco-friendly product design models; research topics; regional global visitation; studio and laboratory experiences; project and presentation.

### **SUST- 730 Sustainable Futures (3.00 cr.)**

Repeatable: No

Concepts of sustainable design and development. Explores methods/tools for assessing sustainable products and processes from economic, environmental, and societal perspectives. Policy and

regulatory impact and cost benefit analyses. Industrial applications exploration through case study analyses.

## **TECED – Technology Education**

### **TECED- 525 Technology For Elementary School Children (2.00 cr.)**

Repeatable: No

Development, philosophy, objectives and course organization for industrial arts for the elementary schools. Suitable laboratory work in woods, metals, plastics and drawing.

### **TECED- 533 Planning Technical/Vocational Laboratories (2.00 cr.)**

Repeatable: No

School shop facility planning: equipment selection, placement, care and management.

### **TECED- 540 Middle School Technology Education (2.00 cr.)**

Repeatable: No

Reviews trends and activities in the technology education movement. teach middle school offerings.

### **TECED- 575 Workshop: (1.00 - 3.00 cr.)**

Repeatable: No

Current specialized topics in industrial education through experiential activities.  
Instructor's consent

### **TECED- 603 Activities In Technology/Vocational Education (2.00 cr.)**

Repeatable: No

A study and design of learning activities for industrial and vocational education. Learning activities will be developed on selected levels of the cognitive, psychomotor, and affective domains to carry out stated behavioral objectives. An evaluation of the appropriateness of learning activities as presented in contemporary curriculum projects.

### **TECED- 631 Field Trips To Industry (1.00 - 3.00 cr.)**

Repeatable: Yes

Opportunities are provided for industrial and vocational education majors as well as teachers to accumulate information about industries through local and distant on-site visits to industries. A third credit may be earned by showing evidence of application of data collected in courses being taught.  
Department consent

### **TECED- 637 Organization/Management Of Technical Laboratories (2.00 cr.)**

Repeatable: No

Experience in administration, project development and teaching problems associated with industrial education.

### **TECED- 638 Course Construction (2.00 cr.)**

Repeatable: No

Directed experience in curriculum development and course of study construction for industrial education teachers; development of behavioral objectives and of instructional materials to help reach

these objectives; development of course of study, instructional package/unit of instruction.

### **TECED- 704 History/Philosophy Technology Education (2.00 cr.)**

Repeatable: No

Evolution of modern industrial education through the people, movements, events and institutions that contributed to its formation. Developments and conditions in education and society also considered plus their relationship to the theory and practices of industrial education throughout the years.

### **TECED- 708 Issues In Technology Education (2.00 cr.)**

Repeatable: No

A seminar dealing with selected current issues in industrial arts. Developments of abilities to develop a position and defend it, to be critical without being offensive, and to be professional in an emotional atmosphere.

### **TECED- 710 Curricular Innovations In Technology Education (2.00 cr.)**

Repeatable: No

Study of current innovative programs and practices in the teaching of industrial arts.

### **TECED- 735 Problems In Industrial/Technology Education (2.00 cr.)**

Repeatable: No

Identification, selection, and the completion of a problem in industrial education, culminating in a Plan B paper.

*Prerequisites: take TECED-739 and EDUC-740*

### **TECED- 739 Introduction To Research In Vocational/ Technology Education (1.00 cr.)**

Repeatable: No

Study of selection criteria for advanced technical problems in industry and technology, development of techniques appropriate to attacking these problems, identification of industries and organizations relating to these problems and preparation of a detailed proposal to explore a particular problem. Students should enroll for this course during their first graduate enrollment and plan to take the appropriate "problems" course during their next enrollment.

### **TECED- 746 Seminars In Technology Education (1.00 - 3.00 cr.)**

Repeatable: No

Identifying goals and outcomes for the local school; development of immediate and long-range curriculum plans; cooperating with local school administrative units in planning for improvement; use of the new Wisconsin curriculum guide for industrial education; initial preparation of individual courses of study for the local school program using behaviorally stated objectives.

### **TECED- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved position to gain business/industrial/other experience. Normally entails recurring, supervised work periods, each one building and expanding on the

previous.  
Department consent

**TECED- 770 Thesis--Industrial/Technology Education** (2.00 - 6.00 cr.)

Repeatable: No

Independent research under direction of investigation adviser. Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

*Prerequisite: take EDUC-740*

**TECED- 775 Workshop** (1.00 - 3.00 cr.)

Repeatable: Yes

Special topics providing hands-on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

**TECED- 798 Field Experience** (1.00 - 2.00 cr.)

Repeatable: No

Department consent

**TECED- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

**TECED- 895 Field Study In Industry And Technology** (2.00 - 6.00 cr.)

Repeatable: Yes

A study which provides the graduate student with the opportunity to: (1) explore in-depth the body of knowledge associated with his substantive teaching field in industry and technology, (2) provide an educational experience for implementing this knowledge into the classroom situation, and (3) devise methods to determine if this methodology has brought about desired behavioral changes.

## **TECH – Technology**

**TECH- 540 Future Of Work** (1.00 - 2.00 cr.)

Repeatable: No

Future possibilities as to why people work, who will work, and in what conditions. Project probable work parameters from current trends. Relate past, present, and future to students' individual work situations.

**TECH- 733 Impacts Of Technology** (2.00 - 3.00 cr.)

Repeatable: No

A contemporary, historical and futuristic look at some of the economic, sociological, psychological and political implications of industry and technology. Students will identify and investigate several impacts of industry/technology to show depth of understanding and relationships between them.

**TECH- 775 Epistemology Of Technology** (3.00 cr.)

Repeatable: Yes

The nature, sources, and parameters of knowledge, in this instance

technology, and its relationship to other organized bodies of knowledge.

**TECH- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

## **TRANS – Transportation**

**TRANS- 595 Seminar** (1.00 - 2.00 cr.)

Repeatable: Yes

Specific content is designed to upgrade competencies of participants. Content will change to reflect current state of the art in electricity/electronics or power mechanics.

**TRANS- 792 Special Projects In Transportation/ Energy** (2.00 - 6.00 cr.)

Repeatable: No

Substantive study and activity for specialists in the transportation/energy field to include library work, field observation, laboratory work planned by the student and approved and supervised by a faculty consultant in transportation/energy. Preparation of a technical report. May be repeated for a maximum of six semester credits.

**TRANS- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **TRDIS – Transdisciplinary**

**TRDIS- 677 International Study** (1.00 - 16.00 cr.)

Repeatable: Yes

Inter-institutional credit exchange for students accepted in university-approved study abroad or international exchange programs offered through the office of international programs at recognized/accredited institutions in other countries. The course may be repeated.

**TRDIS- 710 English Research and Writing for Graduate Students** (3.00 cr.)

Repeatable: No

Refining research and writing skills for success in graduate-level coursework in the U.S. Includes two hours of mandatory lab/discussion.

Department consent

**TRDIS- 735 Investigations** (2.00 cr.)

Repeatable: No

A research experience which culminates in a Plan B paper.

Department consent

*Prerequisite: take EDUC-740*

**TRDIS- 770 Thesis** (2.00 - 6.00 cr.)

Repeatable: Yes

Independent research under direction of investigation adviser.



Selection of problems, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours of credit in various terms with a final total of six.

Department consent

*Prerequisite: take EDUC-740*

## **TRHRD – Training and Human Resource Development**

### **TRHRD- 560 Training Systems In Business And Industry (3.00 cr.)**

Repeatable: No

Types and purpose of training as related to business and industry. Training analysis, content, delivery systems, evaluation and justification for training. Designed for non- education majors.

### **TRHRD- 570 Training Methods In Business And Industry (2.00 cr.)**

Repeatable: No

Identification of training situations where the development and delivery of training is needed. Emphasis is on methods to deliver a training session. Students will be required to make training sessions presentations.

### **TRHRD- 575 Workshop (1.00 - 3.00 cr.)**

Repeatable: Yes

Special topics providing hands-on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

### **TRHRD- 589 Training Internship (1.00 - 8.00 cr.)**

Repeatable: Yes

Opportunities for students to learn and practice training management and instructional techniques through activities and experiences in a training department. Objectives commensurate with student's background and field of training. Activities include designing and implementing training programs in student's major or minor field of study in either industry, business, military or government training programs.

Department consent

*Prerequisite: take TRHRD-560*

### **TRHRD- 600 Workshop (1.00 - 3.00 cr.)**

Repeatable: Yes

Special topics in training and human resource development providing hands-on or experiential learning activities. Specific content and title to reflect topic of the workshop.

### **TRHRD- 730 Systematic Training Design and Development (3.00 cr.)**

Repeatable: No

Systematic approach to the design and development of training in a business context, including analyzing performance problems, conducting training needs assessment, work behavior analysis, writing training performance objectives, and selecting appropriate training methods and techniques.

*Prerequisites: take TRHRD-560*

### **TRHRD- 731 Systematic Training Measurement and Evaluation (3.00 cr.)**

Repeatable: No

Systematic approach to the measurement and evaluation of training in business. Knowledge and understanding of training measurement and evaluation models by applying statistical concepts, measuring and analyzing data, and developing formative and summative evaluation instruments. Design of evaluation proposals, apply evaluation methods at four evaluation levels.

*Prerequisite: take TRHRD-730*

### **TRHRD- 735 Field Problem In Training And Human Resource Development (3.00 - 4.00 cr.)**

Repeatable: No

Identification of a training and human resource development research problem. Review of related research, selection of appropriate methodology, completion of research procedures, analysis of results and formulation of conclusions, recommendations and implications for practice. Final product is a written research report.

*Prerequisite: take INMGT-700*

### **TRHRD- 740 Leading the Learning Function (3.00 cr.)**

Repeatable: No

Leadership in developing human capital to execute the organization's strategy: planning, organizing, monitoring, and adjusting activities associated with the administration of workplace learning and performance.

### **TRHRD- 746 Seminar In Training and Human Resource Development (1.00 cr.)**

Repeatable: Yes

Current trends in research, practice, and professional development in the field of human resource development (HRD). Program-specific topics will address changing roles of HRD professionals, current research in HRD, developing a research proposal, and how to launch a career in the field.

### **TRHRD- 749 Cooperative Education Experience (1.00 - 8.00 cr.)**

Repeatable: Yes

Work and study in an approved training department in business, industry, or government. May be recurring, is supervised during work/study periods. Any recurring work/study periods would be designed to build upon previous experiences in the course.

Department consent

### **TRHRD- 775 Workshop (1.00 - 3.00 cr.)**

Repeatable: Yes

Special topics providing hands-on or experiential learning activities. Specific content and title to reflect the topic of the workshop.

### **TRHRD- 789 Internship In Training And Development (2.00 - 8.00 cr.)**

Repeatable: Yes

Opportunities for students to use competencies in analyzing training needs, design training, delivering training and evaluating training in an organization. Course objectives commensurate with student's

knowledge, skills, experience and interests.

Department consent

*Prerequisites: take CTE-534, TRHRD-730, and MEDIA-710*

**TRHRD- 799 Independent Study** (1.00 - 3.00 cr.)

Repeatable: Yes

Department consent

## **WGS – Women and Gender Studies**

**WGS- 511 topics In Women's Studies** (1.00 - 3.00 cr.)

Repeatable: Yes

Exploring, from interdisciplinary perspective, new information and ideas in a selected area of significance to women's studies.